



FRIDAY, MARCH 16.

### Eight-Coupled Locomotives for the St. Gothard Railway.

The engraving herewith represents an engine for working the heavy traffic of the St. Gothard Railway. These are very heavy engines, and in working order weigh 50.8 English tons, or 113,792 lbs. Next week we will publish sectional drawings and a description of them, which, with the engraving herewith, are taken from the London Engineer.

### Contributions.

#### Balancing Locomotive Wheels.

TO THE EDITOR OF THE RAILROAD GAZETTE:

SIR: Opinions have differed so widely about the right amount of counter-balance to put into a locomotive wheel, and so many experiments and more calculations which are more or less relied on have been made that it seems as if locomotive builders had left the subject to take care of itself, and rested on the ideas of not the practice of twenty years ago, not caring to trouble about it unless they had complaints of the over or under balance of their engines.

The main question at issue, when we have balanced all the revolving parts, is: Are we to stop, or are we to go on loading the wheel to compensate for the motion of the piston,

effort would be given out again before the end of the stroke, yet the frequent changes in direction of the forces could not go on beyond a certain speed, depending largely on the good fit of the joints.

Remembering the effect of the reciprocating parts, and also calling to mind that their only connection with the engine is through the crank-pin, let us look at the effect of placing a balance for them opposite the crank-pin. The horizontal component of the centrifugal force caused by this weight revolving will do away with the reciprocating forces above mentioned and consequently with their beneficial equalization of the efforts on the crank-pin, while the vertical component will pound on the rail at every revolution like a steam hammer.

Mr. D. K. Clark and Mr. Weissenborn both advocate the balancing of reciprocating parts by equal weights on the wheel in outside cylinder engines; but something similar to the above considerations must have led others to balance only two-thirds, and it becomes a question whether we are not doing more harm than good in trying to balance the reciprocating parts at all.

In all self-contained engines the case is very different, and great care has been taken over the perfect balancing of some of the high-speed engines of to-day, some of which are run for trial up to 300 revolutions per minute on a solid foundation, held down by nothing but two or three  $\frac{1}{2}$ -in. bolts, and that only for cases of emergency. For in these engines the only disturbing force is that vertical component of the balance weight which cannot be got rid of in a single engine. But, as we have seen in the locomotive, this vertical component has no unyielding connection with the body of the engine, and therefore cannot affect its motion.

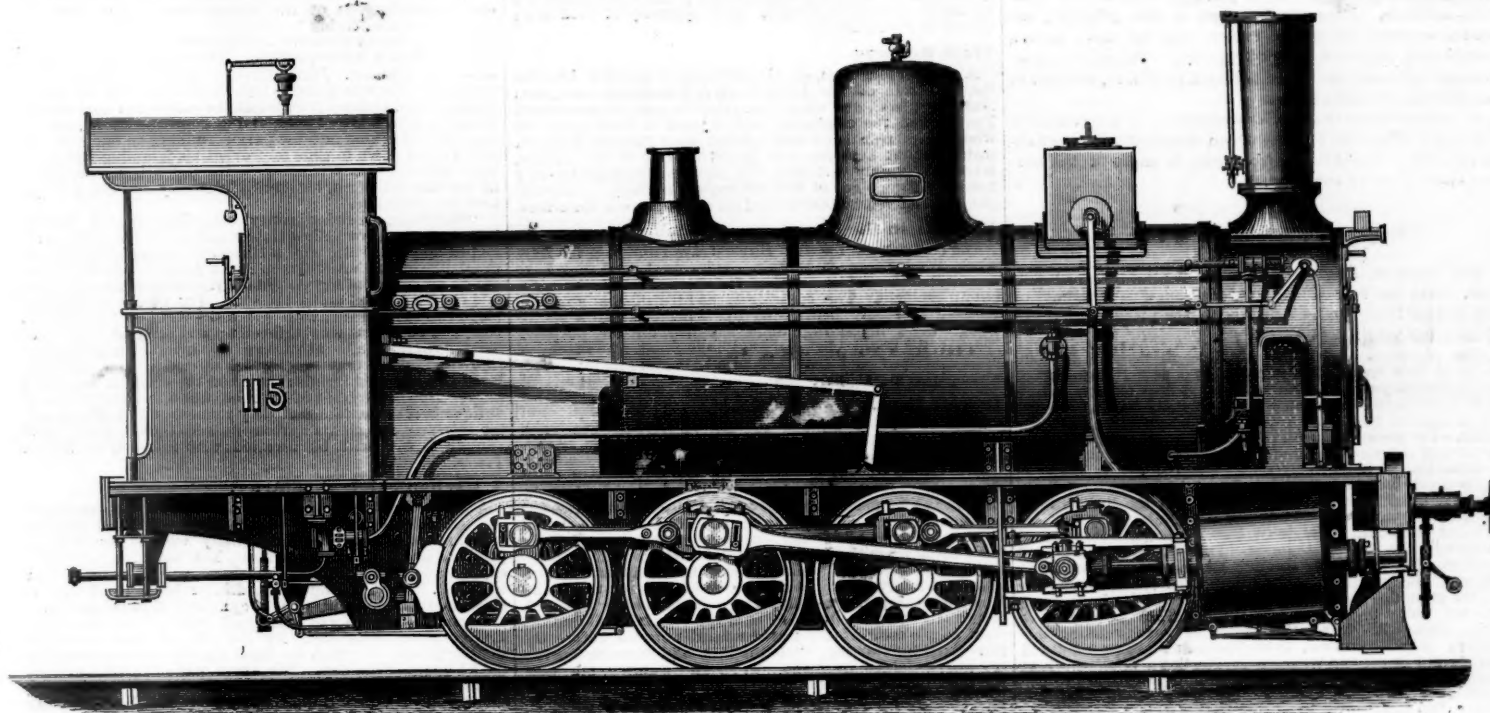
not be placed on the steadiness with which an engine runs when raised up from the wheels, either on jacks or suspended from cranes, for it is then in an abnormal position, and the disturbing forces, which will pass to the rails when in action, are confined to the engine, which for the time being becomes a self-contained stationary engine.

With these few suggestions, the subject is commended to the attention of those who are able, by the comparison of sister engines with different balance weights, to ascertain what is really the most mechanical and economical amount of balance, both for the track and the locomotive.

### The Baltimore & Ohio Railroad Company and its Organization.

Evidently the connection of this road with local politics, by the subscription of the city of Baltimore to its stock, was a disturbing element in its early affairs. Out of these political relations resulted disorganization, about which nothing definite can be asserted, except that order was restored soon after its President, still in office, was elected, about 1857. A year or two previous he had been a member of the board of directors. He had been quickly recognized as a leading member by position on committees, and it is safe to say that his business-like decisiveness and steadiness of purpose resulted in a condition of affairs which had not existed before, but which has continued to exist to the present. These facts are essential to a proper comprehension of the spirit and form of the organization now existing in the company.

The Baltimore & Ohio Railroad Company began its exist-



Constructed by Messrs. MAFFEI, Munich.

EIGHT-COUPLED LOCOMOTIVE FOR THE ST. GOTHARD RAILWAY.

From the designs of Herr J. STOCKER.

piston-rod, crosshead and small end of the connecting-rod; and, further, if we balance these reciprocating parts, is it to be the whole or only part of them?

In order to get an idea of the magnitude of the force under consideration, we must follow the cross-head darting to and fro at high speeds. Now a very simple calculation shows us that the acceleration and retardation near the ends of the stroke are about 18 times greater than the acceleration which would be due to the action of gravity on the cross-head if the latter were allowed to fall from rest; which simply means that the accelerating and retarding forces are 18 times greater than the weights to be moved; or that a crosshead weighing say 160 lbs. uses  $160 \times 18 = 2,880$  lbs. of the steam pressure in the cylinder to move it at the high speeds of our express trains. Thus something over 10 per cent. of the power of the engine is absorbed by the cross-head alone in the first half of its stroke. But this power is by no means lost; it is all paid back during the retarding or second half of the stroke, and transmitted to the crank-pin, where it is converted into useful effort. The same is manifestly true of piston and piston-rod.

We see, therefore, that these reciprocating forces have little to do with the unsteady riding of the engine, but are a means of transferring effort from the former half of the stroke to the latter half; and this is a benefit to the engine, for the steam pressure is always in excess during the first part of the stroke, and the reciprocating forces, instead of being wholly evil, have the virtue of equalizing the effort on the crank-pin, and thus preventing the wearing oval of crank-pins and tires.

It is quite possible to imagine that the total weight of the reciprocating parts of an engine might be so great as to absorb the whole effort of the steam in their acceleration, in which case there would be no effort on the crank-pin during the first half of the stroke; and although all this

From the above consideration we seem driven to the conclusion that more harm than good comes from the balancing of reciprocating parts in an ordinary locomotive; but for very high speeds, where the power absorbed by the acceleration of the reciprocating parts is so great that it transfers too much of the steam power of the first half of the stroke—in that case, some compensation should be placed on the wheel, but even then only a small percentage of the total weight of the reciprocating parts. It may be that some locomotives have been built on this principle, but we imagine that it is still the custom to overbalance wheels by trying to compensate imaginary evils in the reciprocating parts.

If, then, the reciprocating forces in a locomotive have no bad effect, what is it that compels us to have such long wheel-bases to secure a steady engine? The best way to find an answer to this is to remember the old law that "action and reaction are equal and opposite," and consider what forces act on the engine from without, where we shall find the resultant of all the complicated strains. The flanges of the wheels and draw-bar are points of action which may be neglected in seeking for the disturbing element, because they are so simple, and the only other point is the tread of the driving-wheels. Here we have the tractive force of the engine and the reaction of the upward pressure on the guides. Now, if the axle and the wheel were perfectly rigid, the former force would be divided between the two sides of the engine; but, as it is, the effort is exerted first on one side and then on the other, while the latter force acts as a vertical, not evenly but partly balanced by the vertical pressure on the other side. Thus at the tread of the driving-wheels we find the main results of the disturbing forces, which seem to be in direct proportion to the distance of the cylinders apart.

It is well to bear in mind that too much reliance should

ence in 1827; in 1847 there was printed a formal organization, which is, perhaps, the oldest document of the kind in the country. It may be briefly stated as follows: A board of directors and a President, with other officers, to wit: Chief Engineer, acting as General Superintendent; Master of Road; Master of Machinery; Master of Transportation; the last three officers reporting to the General Superintendent. Other officers mentioned are the Treasurer, Secretary, Chief Clerk, Book-keeper, Collector, Ticket Agent and Bill clerk, whose duties are all largely clerical. The Master of Transportation acts as Paymaster, Supply Agent, etc. The Treasurer, however, signs all checks, which must also be countersigned by the Secretary, whose duties include stamping (under the direction of the President), the tickets to be used in the transportation of the passengers. The making of rates of all kinds appears as the duty of the President and the board.

*The Present Organization.*—The general executive officers are the President and three Vice-Presidents.

*Transportation Department.*—The head of this department is the Master of Transportation, who exercises all the duties of a superintendent; he has subordinate to him a Supervisor of Trains for each division—divisions extending, on the average, about one hundred miles. The Master of Transportation is responsible directly to the President and the vice-presidents.

The Master of Machinery is also an independent officer, reporting directly to the President. He has three assistants, one for each of three general divisions of the road.

*The Road Department* is in charge of a Master of Road, reporting to the President. He has three assistants, each in charge of about 200 or 250 miles of road, under whom are supervisors of road.

The General Freight Agent is responsible to the President, and has two assistants located at different points.



The General Passenger Agent and the General Ticket Agent are responsible directly to the President; as are also the General Manager of Express, General Manager of Telegraph, Auditor and Treasurer. The Manager of Telegraph has a Superintendent of Telegraph reporting to him. There is also a Superintendent of Sleeping Cars reporting to the Third Vice-President. Every payment made from the treasury must be authorized by the Auditor, and he has special charge of disbursements. There is an Assistant Auditor reporting to him, who is, in fact, Auditor of Revenue Accounts.

It will be seen that the organization is strictly by departments, and authority is centralized in the President and the vice-presidents acting as his deputies.

There are two out-lying organizations:

(1). The Pittsburgh Division, consisting of main line and branches, is in charge of a General Superintendent reporting to the Vice-President. He has as subordinate officers a Master of Road and an Assistant Master of Machinery.

(2). The Trans-Ohio Division is under the control of a General Manager, reporting to the President and Vice-President. There is an Assistant Master of Machinery who reports to the Master of Machinery and to the General Manager. There is also a Master of Road reporting to the General Manager. There are two transportation officers, or division superintendents who report to the General Manager, and under whom are supervisors of trains.

The road has had, and shows the benefits of, an individual and continuous control, extending its personal direction to and in all departments of service. It is probable that concentration of responsibility has been a great benefit to the Baltimore & Ohio Railroad, and that this kind of centralized authority and responsibility is necessary to cure disorganization resulting from political control over business interests. Economy has been a first principle, the direct economy of saving rather than the more experimental but larger economy of spending. This or the rigorous centralization has, there is reason to believe, resulted in an unusually honest service.

If centralization were a centralization of responsibility for every official act to those whom these acts most seriously affected, it would be far from error to make it the corner-stone of every company.

#### Projected Railroads in Michigan.

Maj. Ransom, Deputy Railroad Commissioner of Michigan, gives the following somewhat sanguine account of the prospects for the construction of new roads in Michigan during this year:

The preparations for this year's work provide for 600 miles of new lines. This is probably double the amount of any previous year. If the year's results bear out this anticipation Michigan is expected to stand at the head of the list in amount of new roads constructed by any one state for 1883. The above estimate rests on no mere surmise. In a portion of the cases the grading is already partly completed and the iron on hand to lay the entire line.

The roads on which the work is to be done are the following: On the Pontiac, Tuscola & Cassville the line will be completed from its present terminus at Inlay City to Cassville, at the mouth of Saginaw Bay, 75 miles, where it connects with the Alpena steamers. This is about 75 miles of road running lengthwise through the Huron peninsula (the thumb). The iron for this extension has been bought and is on the ground. The Michigan Central will be built from Beaver Lake to Alpena, 75 miles. The Michigan & Ohio road will have 150 miles of road running this season. The Milwaukee, Lake Shore & Western road will build from its present terminus in Northern Wisconsin into the upper peninsula of Michigan, running westward to the southern end of Lake Agogebie, and thence to the Montreal River, 125 miles of the line being in this state. The Houghton & L'Anse road will be built this season, 40 miles in length, opening up rail connections with the copper region. The Jackson branch of the Grand Trunk is under contract, 40 miles in all. The ungraded line north from Marshall, about 100 miles, is expected to be among the completed lines before the end of the year. The authority for this information is not mentioned, but the line is placed among the certain ones. The Toledo, Ann Arbor & Grand Trunk has passed into the hands of the Garrison interest, and on the basis of information from the New York office it is down for about 100 miles of construction. There are 250 miles additional that may be constructed before another New Year's, and may none of it be built, and 150 miles besides the latter that are awaiting favorable contingencies, which may mature this year and may not.

#### THE SCRAP HEAP.

##### Abating the Smoke Nuisance.

The Illinois Central is making a vigorous effort to abate the smoke nuisance on its suburban line by the introduction of six new coke-burning engines. They are made by the Rogers Company, Paterson, N. J., and designed especially for suburban traffic, being what are known as double-enders. The engine and tender are connected by a rigid frame, and run either way with equal facility. The cylinder is 18 in. in diameter, with a 22-in. stroke. The driving-wheels are 48 in. in diameter, and the boilers of the same size. The tender rests on one four-wheeled truck. The engine rests on two pairs of coupled driving-wheels and one pair of leading wheels. Four of these engines are now in use. The fourth, No. 228, made several trial trips yesterday, and proved eminently satisfactory as far as so limited a test could determine. The coke fire gave an excellent heat, steam was raised easily and a uniform pressure of about 95 pounds obtained. No smoke is visible at the top of the smoke-stack, the bluish vapor which is given off more resembling steam. The company will give the coke-burning apparatus a thorough trial, as the smoke nuisance has been a subject of considerable complaint on the part of the thousands of passengers who ride to and from the city over the line. In this connection it might be said the Illinois Central is the only one of the suburban lines of this city which has even begun to grasp the situation and appreciate even partially the importance of the traffic. Its cars for the most part are of a new and satisfactory model, and its arrangements as regards commutation tickets are reasonably good. During the severe storms of the winter strenu-

ous efforts were made to keep the trains running on time, and, considering the circumstances, there was little cause for complaint.—Chicago Tribune.

##### An Old Locomotive.

A Minneapolis dealer in scrap iron recently purchased of the St. Paul, Minneapolis & Omaha Railroad Co. two locomotives, one of which had come to be regarded as a relic of by-gone days, and having survived its usefulness was doomed to destruction. This engine was turned out of the Baldwin Locomotive Works in 1855, was first used on the North Pennsylvania Railroad in 1855. Then it drifted into Chicago on one of the lines terminating there, and was subsequently purchased by J. W. Humbird, principal owner of the West Wisconsin Railroad, and was the first locomotive that ran over the track from St. Paul to Hudson, on that route. The old locomotive retained its original number (1) until it was demolished.—Wood and Iron.

##### Assisting Farmers to Secure Good Seed Corn.

Mr. W. M. Sage, General Freight Agent of the Chicago, Rock Island & Pacific Railway, has just issued the following circular to the agents at the various stations on his road: "Owing to the unfavorable condition of corn in the states of Illinois, Iowa and Missouri, it may be necessary to obtain seed for the ensuing season from the adjoining states. If this is a fact in the vicinity tributary to your station I wish you to consult with responsible grain buyers at your station and ascertain what quantity of corn the farmers wish to buy for planting. The grain-dealers and ourselves being mutually interested in this our joint object should be to assist the farmers to obtain good seed at as low prices as possible. To accomplish this we suggest that the grain men take hold of the matter and purchase suitable grain at some advantageous point in Kansas, Nebraska, or Missouri, and furnish the same to farmers at the actual cost price, we on our part transporting such grain over our line free of charge. It must be distinctly understood that no farmer will be permitted to purchase more of this corn than is actually needed for planting; and also that the grain-dealers will furnish you with a list of the names and addresses of farmers to whom they have sold corn, stating the quantity, in order that our freight charges may be refunded to the grain-dealers. Please give this your prompt attention and advise me as soon as possible what quantity of seed is required at your station."

##### Train Robbery.

A gang of four men, on the evening of March 8, boarded the mail train on the Little Rock & Fort Smith road, near Mulberry, Ark., and made an attempt to rob the passengers. They killed the conductor and injured a brakeman, but when some resistance was offered they jumped from the train without securing any plunder. One of the robbers, who was severely wounded, was captured the next day in a house near the place of the attempted robbery. The company has offered \$5,000 reward for the capture of the others.

##### Blasting in the Haverstraw Tunnel.

The contractors for the Haverstraw Tunnel on the New York, West Shore & Buffalo road report that they have used "Rackarock" in blasting for the past two years without an accident. The cartridges, as furnished, are not explosive, and only become so by being soaked just before using, in a liquid ingredient supplied for the purpose. Neither the liquid nor the solid ingredient are explosive until combined, and they are said to contain no glycerine, nitro-glycerine or gun-cotton.

##### Private Cars.

It takes but 13 minutes to lead an elephant on a train, while it takes 20 for any sort of woman to kiss her friends good-bye and lose the check for her trunk.—Rome Sentinel. Mrs. Langtry says she does not want a private car when she travels. If she does not want a private car when she travels, when does she want one? She certainly does not want one when she is sitting in a rocking chair in the hotel. In this country, about the only time people have any use for a car is when they travel.—Texas Sittings. Funny pictures and humorous sketches frequently represent a fat man arriving at the station too late for the train. It is the lean man, generally, who arrives behind time. A glance at the passengers in a train of cars will find the stout people comfortably seated several minutes before the time fixed for starting, while the thin and nervous travelers are sprinkled over the surrounding country, hurrying for their tickets.—Exchange.

##### Directions for the Guidance of Employees in Railway Accidents.

The following circular, prepared by Chief Surgeon Wm. Duncan, has been issued to the employees of the Savannah, Florida & Western and the Charleston & Savannah roads, by order of General Manager H. S. Haines:

"1.—In railway accidents, the utmost coolness should be observed by employees in order that a calm and comprehensive view of the situation may be promptly taken, and the best judgment exercised as to the measures most advisable under the circumstances.

"2.—Where any person has sustained a severe injury, the nearest competent surgeon should be sent for as soon as possible, the messenger being careful first to inform himself, as well as the circumstances will permit, concerning the nature of the injury, that the surgeon may come provided with such medicines, appliances and appliances as will be most useful.

"3.—Where the injury has been severe and the patient is at all inclined to faintness, he should be placed in a horizontal position; especially should this be observed where there has been loss of blood.

"4.—Where a large blood vessel has been injured, never tie a handkerchief above the injury, as it will impede the circulation of the blood in the injured member or part, at a time when circulation is most needed. Hemorrhage will generally be controlled by the application of a bunch of waste cotton or a sponge directly into the wound, and held there firmly until the flow of blood ceases. Ice or hot water may also be applied locally for the same purpose. In cases of hemorrhage, the patient should be well covered with blankets and kept warm. It should be borne in mind that hemorrhage from railroad injuries is not generally fatal; even where limbs are crushed off, the blood vessels are usually so compressed that there is comparatively little hemorrhage.

"5.—In cases of fracture of any of the limbs, the patient should be placed in a recumbent position, and left to select that position of the injured part which will secure to himself the greatest ease or freedom from pain.

"6.—In cases of fracture of any of the ribs, or where the chest has sustained severe contusions, bind a towel or bandage 10 or 12 inches wide firmly around the chest, with a view of preventing its expansion and contraction as much as possible, rendering the breathing more with the abdomen than the chest, and therefore less painful and difficult. Great relief will follow such a course.

"7.—In cases of burns and scalds, apply a paste made of water and baking soda, and cover the part with a piece of oiled silk. Soda keeps out the air and alleviates the pain.

"8.—Stimulants should not be used in every case of accident, but should be administered with discretion, and are

admissible where the shock to the nervous system has been great and the vital powers diminished. In injuries about the head they should be avoided."

##### The Railroad Reporter Goes into Society.

The railroad reporter, with a map spread before him, was busily engaged in building the last link of a road which was to connect the X. Y. W. and the G. O. H. roads, forming a grand trunk line between the important points of A and Z, the local traffic of which would pay operating expenses, fixed charges, 5 per cent. quarterly dividends, with an occasional scrip issue to holders of preferred paper. While thus engaged the society editor turned in his chair, pulled down his collar, and said:

"Are you much of a ladies' man?"

"Me! Yes, I am; always on time, although I may not look it," said the railroad reporter, very calmly. "At one time I was a regular standard-gauge, steel-rail, stone-ballast swell, but of late years I have uncoupled from that sort of business and have been running on a different line."

"Do you think you could relieve me to-night of a *recherché* affair among the *crème de la crème*, and do justice to the *tout ensemble de la soirée*?"

"I think I can, if there's time to make the transfer without missing connections."

"You'll be on time to witness the denouement. It's the marriage of Col. D'Oille's daughter. Pay strict attention to the bride's costume and write up a detailed description of it."

The railroad reporter took out his linen duster from the bottom of his escritoire, borrowed a chew of tobacco from the political reporter and started for the residence of Col. D'Oille. Among the wedding notices the next morning was the following:

"Last night a large number of high joints blockaded the residence of Colonel D'Oille to witness the marriage of his lovely daughter, Jeannie Baptiste, to the Hon. John Quincy Jeems, Jr. Colonel D'Oille was General Manager of the entire guest system, and had his headquarters established in the dining-room, and only left his post and the sideboard, where the gentlemen were frequently side-tracked for repairs, to go through the parlors on a trip of inspection. Mrs. Colonel D'Oille acted as commissioner of the guest pool and superintendent of the dining service, and spent the most of her time fixing the divisions of the supper courses and seeing them forwarded to destination on schedule time. It was in fact a Miller-platform, Westinghouse-brake, paper-car-wheel occasion. Just before the arrival of the reverend conductor who was going to pull the bell-cord for the matrimonial train, Colonel D'Oille left the sideboard and started up-grade with a heavy load, and in consequence slipped an eccentric and came into the parlor running on one side, but was flagged down in time to prevent his jamming his head-light through a bay window. The Colonel, in stopping to fill his tank too often, lost the right of way and did not witness the ceremony."

"The bride, a slender beauty, was dressed in a flowing robe de chambre or yellow-tinted bobinet muslin à la *crux*, looped up at the sides with a Hungarian pompadour of blue grenadine and fichus of Queen Anne gimp. The dress was cut on an incline of forty-eight degrees across the shoulders and curved around under the arm. The bosom of the fair bride was surmounted with a trestle-work of Louis XIV. lace, and her waist was surfaced up and filled in with artificial flowers, made attractive by several narrow-gauge short lines of red trimming, which skirted around and centered at a common terminal point on the crest of her polonaise. Down the front of the robe was a midland route of antique buff serge, intersected by numerous feeders of costly *fez* merine. Articles of agreement were signed, and the first annual report will be awaited with interest."—Chicago Times.

##### A Mechanical Train-Starters.

A new machine, operated by clock-work, is to be placed in the train-starters' tower at the Grand Central Station, which is designed to do automatically what is now done by men employed as train-starters. The machine, of brass, copper, and steel, occupies but little space, it being less than 2 ft. in either length, breadth, or height. The mechanism consists of three upright cylinders of brass, in which are punctured a series of holes, each representing one of the 1,440 minutes in the day. By the side of these are three smaller pillars, on which are fixed spirally pins representing the 24 hours of the day. The three pairs of pillars as they stand in the case represent respectively the three roads using the Grand Central Station, the Harlem, New York Central, and New York, New Haven & Hartford. A series of springs are set so as to be operated upon by the two cylinders as they, each in turn, make their revolution in the 24 hours of the day. These springs connect with electrical appliances. The fixed pegs on the hour cylinder and the movable pegs set into the minute cylinder striking the arms of the spring, set the necessary bells ringing in various parts of the station. At 20 minutes before the leaving time of through trains bells are rung for the gates to be open. Fifteen minutes later they ring a warning "all aboard" in the passenger rooms, and in the baggage rooms notify the baggage-master to have all his baggage on board the train. At one minute before leaving time they ring to close the doors leading to the station, and they ring a minute later to start the train. All this is done automatically by this ingenious contrivance of clock-work and mechanism, and without the possibility of a mistake, unless the clock-work or electrical machinery clogs or breaks. The machinery adjusts itself once in seven days to the fewer trains that run on Sundays, and then readjusts itself for Monday's increased travel. All this signaling is now done by hand, the bells being rung by a system of men. It is claimed that greater accuracy can be obtained by the use of this contrivance, and much labor saved. Its capabilities will be fully and severely tested in the trial which it will at once receive at the station. There are now 198 trains arriving at and leaving the station each day in the week, except Sundays, when the number is but 48. During the summer the arrivals and departures on week days are increased by about 40 trains.—New York Times.

##### Examining Trainmen for Promotion.

A Jersey City paper gives the following account of the way promotions are made on the New York Division of the Pennsylvania Railroad:

"For the past three weeks 20 brakemen and baggage-masters on the Pennsylvania Railroad have been attending school in the reading room of the Jersey City depot. In anticipation of a big passenger business the coming spring and summer, the company has thought fit to supply itself with more conductors. Captain Osborn, the ticket receiver at Jersey City, who has the railroad ticket business at his fingers' end, is instructing the class of 20 men. He shows the men the privileges accorded the different classes of tickets, and how to act when a passenger tenders a ticket which is worthless for passage.

"To-morrow Captain Osborn begins to examine the 20 men. This will take two weeks at least. A number of the men have been brakemen for 10 or 12 years.

"After each one in the class has undergone a rigid examination, Captain Osborn will recommend about 10 of those who pass the best examination. The names he selects



"The directors have ordered the distribution to the shareholders on July 2, 1883, of stock of the Chicago, St. Louis & New Orleans Railroad Co. in the proportion of 17 shares to each 100 shares of Illinois Central Railroad stock as registered at the close of business on June 15. No fractions will be issued nor will the right to the same be transferred. Settlement for fractions will be made by payment therefor in cash at the rate of \$80 per share of Chicago, St. Louis & New Orleans stock."





Published Every Friday.

CONDUCTED BY

S. WRIGHT DUNNING AND M. N. FORNEY.

#### EDITORIAL ANNOUNCEMENTS.

**Passes.**—All persons connected with this paper are forbidden to ask for passes under any circumstances, and we will be thankful to have any act of the kind reported to this office.

**Addresses.**—Business letters should be addressed and drafts made payable to THE RAILROAD GAZETTE. Communications for the attention of the Editors should be addressed EDITOR RAILROAD GAZETTE.

**Contributions.**—Subscribers and others will materially assist us in making our news accurate and complete if they will send us early information of events which take place under their observation, such as changes in railroad officers, organizations and changes of companies, the letting progress and completion of contracts for new works or important improvements of old ones, experiments in the construction of roads and machinery and in their management, particulars as to the business of railroads, and suggestions as to its improvement. Discussions of subject pertaining to ALL DEPARTMENTS of railroad business by men, practically acquainted with them are especially desired. Officers will oblige us by forwarding early copies of notices of meetings, elections, appointments, and especially annual reports, some notice of all of which will be published.

**Advertisements.**—We wish it distinctly understood that we will entertain no proposition to publish anything in this journal for pay, EXCEPT IN THE ADVERTISING COLUMNS. We give in our editorial columns OUR OWN opinions, and those only, and in our news columns present only such matter as we consider interesting and important to our readers. Those who wish to recommend their inventions, machinery, supplies, financial schemes, etc., to our readers can do so fully in our advertising columns, but it is useless to ask us to recommend them editorially, either for money or in consideration of advertising patronage.

#### THE CHICAGO EXPOSITION AND THE CONVENTIONS.

The fact that the annual conventions of the Master Mechanics' and Master Car-Builders' associations and the National Exposition of Railway Appliances will all be held in Chicago this spring is good reason for expecting that the interest of the meetings of the two associations will be increased by the Exposition, and in turn, that the success of the latter, in its broadest sense, will be very generally promoted by the two conventions referred to, which will be held while the Exposition is open.

The Master Car-Builders' Convention will begin on Tuesday, June 12, and the Master Mechanics' on Tuesday, June 19. The Exposition will open on Thursday, May 24, and continue to Saturday, June 23. There will therefore be much to interest the members of the associations, not only while they are in session but before and after the conventions. It is therefore probable that every master mechanic and car-builder who is a member of either of the two organizations will attend the meetings, and that many who have not heretofore been members will take this occasion of attending them and joining one or the other, or possibly both of the associations.

Of the success of the Exposition, at least so far as the number and character of the exhibits are concerned, there can be little doubt. It is probable, though, that it will impose a greater amount of labor and responsibility on the shoulders of the Executive Committee than perhaps the enterprising, energetic and able gentlemen who compose that body have heretofore realized. That they will be equal to the responsibility if it is once appreciated there can be little doubt. It is plain, though, to any one who has ever seen much of exhibitions of this kind that these gentlemen and the other officers of the Exposition have laid up for themselves a considerable amount of future bitterness and gall in the copious list of premiums which has been announced. A serious difficulty always is to find competent and impartial judges to make the awards. When this becomes manifestly impossible, the only refuge is to give a premium to all or nearly all exhibitors. When this is done the giving of premiums becomes a comedy. This, however, is a matter which has not much to do with the interest of the Exposition to the public and to railroad men. It will be a little private funeral at which either the officers of the Exposition or those to whom premiums have not been awarded will be the mourners, or else it will be a sort of convivial wake at which all hands will be very jolly indeed.

Meanwhile the manufacturers and dealers in railroad appliances of all kinds are getting ready for the Exposition with a good deal of enthusiasm. From every direction we hear of those who are giving

much time, and are going to great expense in the preparation of exhibits, and it seems certain that no exhibition, not even the Centennial, that has ever been held in this country, has had anything like the display of machinery and material of all kinds used in railroads that this one will have. It will be representative of the state of railroad art in this country, as probably no other exhibition, book, report or any other collection of data of any kind has ever been. To the originators and those who have carried the project thus far towards success much credit is due. The exhibition will be of great benefit to all parties interested in any way in the construction or operation of railroads, and a few days or weeks spent there will give opportunities to railroad officers and employees for acquiring special technical knowledge concerning the practical affairs of their occupation, such as is only offered at intervals of half a lifetime. It will therefore be very much to the interest of railroad companies to have their chief and subordinate officers visit Chicago while the Exposition is open, and in the case of those employed in the locomotive and car departments, the fact that the convention and the Exposition will be held simultaneously offers two tempting birds to be killed with one stone.

Something might be said here, with advantage perhaps, of the benefit which results to railroad companies from the education of their subordinate officers and employees. A railroad company which must depend upon its higher officers alone for the intelligence with which its business is conducted is relying upon that which becomes very thin when spread over the multifarious details of a great railroad. An essay might be written on the subject, but it must be sufficient to say that there is no remote, unimportant or insignificant duty which must be performed on a railroad, which would not be better done and which would not result to the advantage of the railroad, if those in supreme control could somehow increase the amount of intelligence in the remote corners, and which controls the performance of such duties of which officers in high authority are, and must be, entirely ignorant.

The inference which it is intended should be deduced from what has been said is that it will be very much to the advantage of railroad men to give their employees, especially subordinate officers, such as foremen, draftsmen, etc., an opportunity of visiting Chicago while the Exposition is open.

There is, however, another effect which is likely to result from the conjunction of the Exposition and the two conventions referred to. There can be no doubt of the fact that the two associations which will then hold their annual meetings are both in more or less of a transition state. Most of our readers are familiar with the main features of the reorganization of the Master Car-Builders' Association. That the Master Mechanics' Association is also in a position in which either some distinct forward or backward step must be taken is obvious. During the last year or two the voices of several of the oldest and most active members have become silent forever. They have been men, too, who did more perhaps than any others to shape the character of the Association. Their places must be taken by some other men. There is the fact, too, that as this older generation of men is passing away a new type of master mechanic is assuming the positions of responsibility. The new man is more liberally educated and begins generally with less practical experience. He has the advantage, however, that his deficiencies in the latter respect are gradually supplied by time, whereas no amount of subsequent practical experience alone will entirely make up for the lack of mental training in youth. The unpractical educated man is therefore much more likely to improve than the uneducated practical mechanic. There is good reason for believing that the new type of master mechanic will have more and more influence each year, although there is no reason why he and the more experienced men should not, as it were, break joints and mutually supply each other's deficiencies.

Those familiar with the reports and proceedings of the Master Mechanics' Association will probably agree in thinking that they have a distinct character of their own. The reader may search in vain through the proceedings of any other technical associations of the world, and he will not find anywhere reports and discussions which have so distinctly the character we are trying to describe. It is as though the people who wrote the reports and took part in the discussions had been educated, not in the usual method from books and in schools, but had acquired their knowledge by a system of object lessons. In all matters, the knowledge of which is acquired by seeing and handling the things themselves, there is a thorough familiarity; but when any considerable degree of the power of abstraction

is required, the limited capacity of the writers and speakers in this direction is nearly always revealed. The consequence has been that the proceedings of the Association which is here discussed have, in a great measure, fallen into grooves and ruts, some of which have been so much worn that advance while traveling in them is slow and sometimes tedious.

There are several reasons for believing that this year there will be a distinct departure from the proceedings of other years. There was last year, and probably will be still more this, an accession of the young type of master mechanic, who will exercise his due influence. In the next place, there will be the Exposition, to give a stimulus to discussion and prevent them from falling too much into the old routine. The articles exhibited will suggest new subjects to talk about which will be fresh in the minds of those who visit the Exposition and will have all the charm of novelty to attract attention.

The Exposition will have a similar influence on the Car-Builders' meetings. There will probably be more novelties on exhibition which relate to car than to locomotive construction, and these will be just as fertile a field for discussion by the car-builders as by the locomotive men. The representative membership of the Car-Builders' Association, which is largely made up of new material and which will probably have a very considerable increase this year, ought to be a valuable addition to the working force of the organization. Unless the usefulness of the Car-Builders' Association is very much increased, the re-organization will have been in vain, and will not have fulfilled its purposes or what was expected of it. That the advantages to be realized from the reorganization will be fully realized at this meeting can of course not be expected, but the increased efficiency of the Association ought to be made entirely obvious then.

Speaking, then, after the manner of certain pious people, there is good reason for believing that railroad men will have a very profitable time in Chicago next June. The prospects of the success of the Exposition grow more brilliant daily, and no doubt many inventors, manufacturers and railroad officers will be induced to come in at the eleventh hour. But already the reports from all over the country indicate that, in the language of Artemus Ward, it will be a big show. It is safe to advise all railroad men to arrange to be there.

#### February Earnings.

February earnings, reported so far by 146 railroads, with an aggregate of 45,308 miles of road this year, which is 10 per cent. more than they worked in February last year, and about 40 per cent. of the total in operation in the United States, show an increase of 2½ per cent. in total earnings over last year, but a decrease of not less than 9 per cent. in earnings per mile—a much worse showing than was made in January, when the 75 roads reporting showed an increase of 8 per cent. in their aggregate earnings, and a decrease of but 1.2 per cent. in their average earnings per mile. In February, 20 out of the 56 roads had smaller total earnings than last year; in January, only 22 out of 75. Of these 22 we have reports from 16 for February, all of which but three report a decrease for that month also. But there are seven roads which had an increase in January which report a decrease in February, the Kansas City, Fort Scott & Gulf, the Milwaukee, Lake Shore & Western, the St. Louis & San Francisco, the St. Paul & Manitoba, the Scioto Valley and the Wabash. The Manitoba has until recently shown enormous gains—for the year 1882 an increase of no less than 79½ per cent in total earnings, and of 45½ per cent in earnings per mile. In February it has a decrease of nearly 7 per cent. in total earnings, and of 32 per cent. in earnings per mile. Its average monthly earnings per mile in 1882 were \$741; in February last, \$312. And yet we venture to say that this decrease has little significance. Very little can be judged of the general course of business by the winter traffic of a road situated like this. There is rarely any emigration at this season. The farmers are not likely to forward much wheat then, especially in so new a country; there is very little lumber received then, and, if prudent, the inhabitants will have laid in their winter's supply of fuel earlier, lest they be cut off entirely. Then unusually severe weather or deep snows may almost put an end to traffic, and a road which in May and June earned more than \$940 per mile in February may fall to \$312, like the Manitoba. The Northern Pacific, somewhat similarly situated, but which has never had nearly so large earnings, continued in February to show much larger total earnings than last year, but its earnings per mile fell from \$277 to \$243, and the February increase in total earnings is but \$104,156, against \$146,668 in January and \$215,025 in



December. These roads hibernate—are in a semi-torpid condition—in winter.

The other roads northwest of Chicago on the whole did about as well in February as in January; witness their decrease and percentage of decrease of earnings in each month:

	February, decrease.	P. c.	January, decrease.	P. c.
Chic., Mil. & St. P.	\$118,378	8.5	\$75,530	5.3
Chic. & N. W.	209,268	14.2	262,228	15.9
Chic., St. P., Minn. & Om.	55,300	16.6	24,495	7.5
Burl., Cedar R. & Nor.	38,630	17.1	55,421	11.9
Iowa Lines of Ill. Cen.	34,711	22.2	38,535	24.4
Union Pacific	198,430	9.6	231,000	11.8
The six	\$624,717	11.7	\$687,215	11.9

Some had a larger and some a smaller decrease in February, we see, but in the aggregate a little smaller. So the larger decrease in earnings per mile is not due to them. It is partly due to the roads which increased in January but decreased in February, which we enumerated above, of which the Manitoba is one, but the most important of which is the Wabash, which cannot afford to do worse than last year, because it did not do well then. Its increase is less than 5 per cent in total earnings, but this brings down its earnings per mile from \$339 to \$304, and this is a very small amount for a great road, whose fixed charges amount to about \$125 per mile per month and whose working expenses in 1881 were nearly 75 per cent. of its earnings. There were special reasons why the Wabash should not do well last February, however. It suffered much from floods—more than any other road so far north, perhaps. The other roads that have changed from an increase in January to a decrease in February had but small decreases in February and but small increases in January. Against them may be set the Denver & Rio Grande, which lost 14.4 per cent in January and gained 6½ per cent in February; which, however, is chiefly because it earned much less in February than in January last year; also the Ohio Central, which changes a loss of 16½ per cent. for a gain of 42½ per cent. but for the same reason: its earnings in February were 40 per cent. less than in January last year, and this year they were about the same in both months; and the third of the roads which increased in February though they decreased in January—the Richmond and Danville—makes the apparent improvement only because its February earnings were very bad last year.

February was not on the whole a very bad month last year, however. Then the 63 roads reporting earned per mile 9.2 per cent. more than in 1881, which, however, was one of the worst of months for all roads in the territory of deep snows.

Of the 12 roads south of Chicago, in Indiana and Illinois, which report, including the Wabash, seven show a decrease in February, and in the aggregate they suffered a decrease of 3.6 per cent., having an increase of 4.4 per cent. in mileage, and their average earnings per mile falling from \$402 to \$371. All but two of these roads that reported last year showed gains then over 1881. The largest decrease (about 33½ per cent.) is on the Cincinnati, Indianapolis, St. Louis & Chicago, which had one end under the Ohio River most of the month. But the Illinois Central lost 17 per cent., and the St. Louis & Cairo 32 per cent. None of the longer roads in this group made a considerable increase—the Chicago & Alton 4 per cent., the Lake Erie & Western 8 per cent., the Terre Haute main line 13 per cent.

The Gould Southwestern roads again make the best showing. The gain of the group of six roads is greater than the aggregate gain of the whole number of roads reporting; that is, leaving out the Southwestern system, the other roads show a slight decrease. With an increase of 13 per cent. in mileage, they have an increase of 27½ per cent. in earnings, and their earnings per mile increased from \$385 to \$433. But even these roads did not do as well as in January, when their increase was \$846,638, against \$525,831 in February. The other Southwestern roads do not all make so good a showing. The Gulf, Colorado & Santa Fe and the Little Rock, Mississippi River & Texas show very large gains, it is true; but the St. Louis & San Francisco and the Fort Scott & Gulf show decreases, and the Little Rock & Fort Smith gained but 4 per cent.

The roads south of the Ohio and the Potomac and east of the Mississippi have also done extremely well. With an increase of 8½ per cent. in mileage they have an increase of 16½ per cent. in earnings, and their earnings per mile increased 12½ per cent. All these roads gain—the Southern Division of the Illinois Central 24½ per cent., the Georgia Railroad 26 and others largely. But even here the six roads which increased \$435,905 in January gained but \$232,160 in February.

Now if we take these Southern and Southwestern roads from the total, we shall find that the Northern roads so far reporting, with 10½ per cent. more road than last year, earned 3½ per cent. less money, and their earnings per mile fell off 12½ per cent.—a notable decrease.

For Eastern roads the data are very few so far. The Grand Trunk gained 6½ per cent., the Long Island 12½ per cent., the Eastern 13½. We may not judge of the 22,000 miles of roads east of Ohio by these few.

That February was decidedly a less favorable month than January this year may be sufficiently known by the facts that the 46 roads which at this writing have reported their total earnings in the aggregate earned \$1,486,323 more than in 1882 in January, but only \$265,737 more in February. These roads had 3,960 miles more road this year than last.

The list of roads which have already reported, however, is still so incomplete that we may not venture to draw a general conclusion for the railroads of the country from the totals and averages we now have. They are very complete from the Southwest, it is true, and tolerably so for the South, but for the Northwest insufficient, and for the East altogether meagre. We shall be able to judge much better a little later, when we have the figures for the Pennsylvania, the Reading, the Northern Central and the Central Pacific.

#### Hog Packing in the Northwest.

The number of hogs packed in the Northwest during the four months ending with February, known as the "packing season," has been as follows for six years:

1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.
6,505,460	7,480,648	6,950,451	6,919,456	5,747,750	5,855,500

The packing this year, therefore, is not quite 2 per cent. more than last year, is 15.4 per cent. less than in 1881, 15.7 per cent. less than in 1880, 21.7 per cent. less than in 1879, and 10 per cent. less than in 1878; but 15 per cent. more than in 1877.

The decrease last year was easily accounted for by the lack of corn; this year, though the corn crop was somewhat less than in 1880, and much less than in 1879, the small number packed was due to the lack of hogs, the high price of hogs a year ago having been an inducement to market as many as possible, and the scarcity of corn making it impossible to keep as large a stock as usual. Hogs are next to grain the most important of Northwestern productions, and for several railroads—notably the Chicago, Burlington & Quincy, the Rock Island, the Chicago & Alton, the Illinois Central, the Wabash and the southern part of Chicago & Northwestern—they are a very important freight. So large a falling off as there has been in the last two years is an unfavorable sign. The reduction in the number of hogs this year, however, will permit the marketing of so much more corn—perhaps 50,000,000 bushels more than if many had been packed as in 1878-79, and perhaps this accounts for the unusually large receipts of corn we have been having.

For the whole year ending with February the packing has been divided between the "summer packing season" of eight months from March 1 to Oct. 31, and the "winter season" of the other four months.

For these two seasons and the whole year ending with February, the number of bags pushed has been, for eight successive years:

	Summer season.	Winter season.	Total.
1882-83.	3,224,842	5,855,500	9,080,342
1881-82.	4,803,680	5,747,750	10,551,430
1880-81.	5,323,898	6,919,456	12,243,354
1879-80.	4,051,248	6,950,451	11,001,699
1878-79.	3,378,044	7,480,648	10,858,692
1877-78.	2,543,120	6,505,446	9,048,566
1876-77.	2,307,866	5,101,308	7,409,174
1875-76.	1,262,342	4,880,135	6,142,478

Thus for the whole year the number packed is 14 per cent. less last year than in 1881-82, and 26 per cent. less than in 1880-81. The fact that the decrease last year was wholly in the summer season, and easily accounted for by the scarcity of corn, leads to the expectation that with the larger supply of corn this year there will be much more packing from March to October than there was last year. If not, it will probably be because the hogs do not exist. The stock was doubtless greatly reduced last year; but it can be increased quite rapidly if desirable—that is, if pork is high and corn plenty. And at all events to the carriers it does not matter for the current year much whether there are many or few hogs, if there is corn enough. If they have no hogs to carry, they will have more corn to carry, and the corn will weigh more than the hogs. In the long run, however, the production of corn will depend very largely on the number of hogs fattened.

The packing of the winter season at the different places shows the following fluctuations of late years:

	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.
Chicago	2,943,115	2,525,219	2,781,064	2,368,100	2,475,000
Kansas City	188,344	195,000	339,678	345,817	445,000
Cincinnati	623,584	534,559	522,425	384,878	422,000
St. Louis	629,261	577,793	474,159	316,379	330,000
Milwaukee	444,221	340,783	325,720	325,019	287,000
Indianapolis	472,435	364,021	388,763	249,178	270,000
Ce. ar Rapids	125,360	146,130	142,426	152,840	158,000
Louisville	187,503	231,259	231,269	131,007	125,000
Other places	1,862,802	2,034,087	1,713,943	1,475,972	1,343,500
Total	7,480,648	6,950,451	6,919,456	5,747,750	5,855,500

The one place which shows a continuous growth in this business, in spite of the decrease in the aggregate, is Kansas City. In 1878-79, when the total packing of the West was greatest, it packed but 2½ per cent. of the total; last year, 7.6 per cent. In these four years, while the total packing has decreased 21.7 per cent., the Kansas City packing has increased 136 per cent., and from the sixth place on the list it has risen to the second. Cedar Rapids is the only other place named which has made a decided gain, and even last year it packed but 2.7 per cent. of the whole. The other named places where less than 125,000 were packed last year have in the aggregate hardly kept

their rank, packing nearly 25 per cent. of the whole in 1878-79 and less than 23 per cent. last year. Chicago holds its position, and, indeed, gains a little, with 39½ per cent. of the whole in the season of 1878-79, and 42½ last season. It would seem natural that the growth of the business at Missouri River points would reduce the packing at Chicago; but Chicago seems to have taken from other places more than it has lost to the new Western packing points. From 1879 to 1882 it lost 16 per cent., it is true; but Cincinnati lost 32 per cent., St. Louis 48 per cent., Indianapolis 43 per cent., Milwaukee 35½ per cent., and Louisville 33½ per cent.

The only part of the Northwest which had a really abundant crop of corn last year was Kansas and Nebraska, and we should expect to see the effect of this in relatively large numbers packed at Missouri River points. So far we have reports for this year only from Kansas City and St. Joseph. The former, we see, shows a large increase. At St. Joseph the number was nearly the same as the year before. Omaha and Council Bluffs are the other packing points on the river. Last year together they packed 135,000.

#### Record of New Railroad Construction.

This number of the *Railroad Gazette* contains information of the laying of track on new railroads as follows:

*Des Moines, Osceola & Southern*.—Extended from Davis City, Ia., southwest to Decatur, 25 miles. Gauge, 3 ft.

*Kansas City, Fort Scott & Gulf*.—This company's *Memphis Line* is extended from West Plains, Mo., southeast to Koshkoning, 11 miles.

*Norfolk & Western*.—The *New River Division* is extended northwest to Pocahontas, Va., 7 miles.

*Pittsburgh, McKeesport & Youghiogheny*.—Track laid from West Newton, Pa., northwest to Boston, 18 miles.

*St. Louis & San Francisco*.—Extended from Pacific, Mo., east to Eureka, 7 miles.

This is a total of 68 miles, making 329 miles thus far reported for 1883, against 823 miles reported at the corresponding time in 1882, 427 miles in 1881, 733 miles in 1880 and 204 miles in 1879.

THE NEW YORK, PENNSYLVANIA & OHIO will be leased by the New York, Lake Erie & Western, if the agreement made to that effect by Mr. Adams, the President, and by Mr. Lewis, Chairman of the "voting trustees" of the former company, is ratified by the bondholders at the special meeting to be held in London. Every proposition of any importance made concerning this company by the voting trustees has been bitterly opposed by the McHenry party in London, and probably this will be also, but the result of the last meeting was such as to show that the trustees command the confidence and support of the great majority, so that we may expect the contract for the lease which Mr. Jewett has made with Mr. Adams and Mr. Lewis to be ratified. The terms, so far as known now, are that, in the first place, the rental in any one year shall not be less than the net earnings of the lessor company in 1882. This is required by a peculiar law of the state of Ohio, which forbids the lease of any railroad for less than the net earnings of the year previous to that in which the lease is executed. Then the Erie will pay the lessor a minimum of 32 per cent. of the gross earnings of the road. But if the working expenses are less than 68 per cent. of the earnings, the Erie will pay the lessor the whole of the net earnings up to 35 per cent. of the gross earnings. Thus the Erie will lose by the lease if the net earnings should at any time be less than last year, and if they should be less than 32 per cent. of the gross earnings, however large in amount. It will profit by the lease whenever the working expenses are less than 65 per cent., provided the other 35 per cent. is more than the net earnings last year. What the net earnings were last year we are not able to say, but they must have been small. Previous to 1880 they did not for several years ever reach \$800,000. In 1880 they were \$1,665,359; in 1881, \$1,520,818. In 1880 the expenses were 67.91 per cent.; in all other years they have been larger, so that there never would have been any profit on the lease if it had been in force heretofore. With good traffic and well maintained through rates a considerable increase of earnings is possible and a reduction of the expenses below 65 per cent. There are of course advantages to the Erie in having the road under its immediate control, but this is not so much a gain as a guarantee against future loss; for the New York, Pennsylvania & Ohio has always been almost exclusively an Erie connection. And their future connection had been already so far provided for by their common contract with the Chicago & Atlantic that to neither company is the lease so important as it would formerly have been as a means of guaranteeing connections. The lease will make it to the advantage of the Erie to cultivate business by this route, and by its terms it agrees to give the lessor road not less than 50 per cent. of its total through east-bound and 65 per cent. of its through west-bound traffic, which is said to be about the proportions it had in 1882. There is also provisions for determining the proportion of the through rate to be received by each road. The division will be made in proportion to mileage, after taking out 1 cent per 100 lbs. for a terminal change. This will give the New York, Pennsylvania & Ohio a larger share of the through rate than it has had heretofore.

The control of this road will simplify the conduct of Erie business somewhat, giving the company direct control of routes through from New York to Cincinnati and Chicago, but it is questionable if any direct profit is to be made from it for some time to come. But the Erie has better credit than the New York, Pennsylvania & Ohio, and if capital is



required to put the road into condition to be worked more economically, it can provide it readily. Very likely with proper improvements the expenses may be reduced below 65 per cent. But the road has been very economically worked heretofore, the average expense per ton and per passenger per mile being generally as low as on the Erie itself. The trouble has been with rates more than expenses.

THE UTICA & BLACK RIVER RAILROAD, whose passenger rate the New York Legislature proposes to limit to 3 cents per mile hereafter, has very light traffic and earnings; in the year ending with September last, the passenger traffic being equivalent to 65½ passengers and the freight traffic to 118½ tons carried each way daily over the whole 180 miles of road worked, and its earnings being \$4,258 gross and \$1,795 net per mile of road, traffic and earnings then being larger than ever before. The average rates received the year before were 3.364 cents per passenger and 3.174 cents per ton per mile, and the average expense (assuming it to be the same percentage for both passengers and freight) was 2.153 cents per passenger and 2.031 per ton per mile, say 90 per cent. more per passenger and 240 per cent. more for freight than on the New York Central. The company leases 93 out of its 180 miles of road, and the rental of these last year absorbed \$73,057 of its \$346,344 of net earnings, leaving \$273,287 for the return on capital of \$2,884,000, of which \$1,112,000 are bonds.

It paid 6 per cent. dividends from 1870 to 1877, inclusive; 4 per cent. in 1878; 2 in 1879; 4 in 1880 and 1881, and 5 last year. Including the leased lines, the total stock and bonds of the 180 miles of road is at the very moderate rate of \$28,040 per mile, and the net earnings last year were at the rate of 6.86 per cent. on this capital. As no dividends were paid on the stock of the leased lines, however, the surplus over interest and rentals was equivalent to 10.83 per cent. on the Utica & Black River stock. The company reports an accumulated surplus equivalent to nearly 24 per cent. on the stock; but this is represented by advances to the leased lines, and is not so far a source of income to the Utica & Black River Company.

It appears, then, that the road has an extremely small capital account, and as it is the successor of a bankrupt corporation it is probable that its capital does not equal the cost of its road. On this capital it earns and pays a moderate interest. The rates are certainly high, but much higher in proportion for freight than for passengers; but as they do not yield an immoderate profit the customers of the road cannot complain of them unless they are mistakenly high—that is, unless the company would be able to make as large profits at lower rates. This is possible; such mistakes as to the best price to ask in the interest of the seller are sometimes made; but though the sellers sometimes do mistake, certainly they are better able than any one else—that is, sellers as a class—to judge what price will bring the greatest profit, or whether a given reduction will bring an addition of business large enough to make up for it. In this matter no general rule will apply. It depends on the number, character and needs of the population using the road. At present the Utica & Black River gets very little patronage for its passenger trains, the average passenger-train load in 1881 having been only about 25—not half a car full. It ran what was equivalent to 2½ passenger trains each way daily over its whole mileage. If there are people enough on the line who can be induced to travel at a lower rate, the passenger traffic might be doubled without increasing the number of trains, and therefore with but slight increase in the expenses of the road. The small profits made by this company indicate that what has led to the movement to reduce its rates by law is not large profit, but the absolute amount of the rate. The net earnings of 11 miles of the main line Pennsylvania Railroad in 1882 were equal to those of the 180 miles of the Utica & Black River.

GRAIN AND FLOUR RECEIPTS AND EXPORTS have been exceptionally large this year so far, and larger than appears from the movement of grain alone, which we record from week to week. The statistics of the New York Produce Exchange show that the total receipts of grain, flour and meal, reduced to bushels, in the first two months of the year in 1880, 1881 and 1883 have been, from the four Eastern ports:

Receipts:	New York.	Boston.	Phila.	Baltimore.	Total.
1880.....	16,305,733	5,957,631	4,234,849	7,400,497	33,898,710
1881.....	12,145,720	4,681,888	3,476,423	5,456,730	25,760,761
1882.....	10,888,000	4,486,701	4,142,860	5,389,683	25,105,853

We have not the figures for 1882, but receipts of grain alone then were extremely small (13,593,559 bushels) though Northwestern receipts then were larger than ever before in winter. This year we see that the receipts of the four ports were a third larger than in 1881 or 1880. Compared with 1881 New York has gained 34 per cent., Boston 27 per cent., Philadelphia 22 per cent., and Baltimore 36 per cent.

The percentage of the total receipts at each of these ports has been:

Receipts:	New York.	Boston.	Phila.	Baltimore.	Total.
1880.....	48.1	17.6	12.5	21.8	100.0
1881.....	47.1	18.2	13.5	21.2	100.0
1882.....	43.4	17.9	16.5	22.2	100.0

The fluctuations in percentages of receipts in these years have been comparatively slight, the most marked change being the decrease at Philadelphia, which is about equal to the gain at New York.

The exports for the two months have been:

Exports:	New York.	Boston.	Phila.	Balt.	Total.
1880.....	15,988,784	2,547,714	2,353,502	6,973,467	27,863,467
1881.....	12,130,342	2,022,973	1,064,838	4,093,488	21,311,641
1882.....	11,120,862	2,702,353	2,600,998	6,027,867	22,452,080

The increase in exports is not quite so large in proportion as the increase in receipts, which was about 8,000,000 bushels and 33 per cent. both years. The exports of the

four ports for the two months this year have been 6,200,000 bushels (28½ per cent.) more than in 1881, and 5,400,000 (24 per cent.) more than in 1880. They are, however, so much larger than in those years of very large exports as to show that the winter exports this year have been extraordinarily large.

Compared with 1881 New York has gained 32 per cent., Boston 3 per cent., Philadelphia 18 per cent., and Baltimore 15.7 per cent.

The percentage of the total exported from each has been:	New York.	Boston.	Phila.	Baltimore.	Total.
1880.....	57.5	9.1	8.4	25.0	100.0
1881.....	56.0	12.1	9.2	22.7	100.0
1882.....	49.5	12.0	11.6	26.9	100.0

Compared with 1880 New York has gained largely and Philadelphia and Boston lost largely in rank as exporters; but compared with 1881, the gain is small at New York and Boston's loss has been gained chiefly by Baltimore. Philadelphia shows a steady but slow decline.

We repeat that these figures are peculiarly valuable, because they include the movement of flour, which has increased altogether out of proportion to the grain movement. The growth in flour receipts and exports tends to increase the proportion of the traffic at New York and Boston. The other two places do not have much of the flour.

THE NEW YORK, CHICAGO & ST. LOUIS seems to have been very slow to get to work, considering the fact that it was advertised to be opened Oct. 15 last. It has done something, to be sure, but has run no through passenger trains and has carried comparatively little freight. While this was doubtless partly due to its own lack of facilities, a part also has been due to a lack of intimate connections with roads east of Buffalo. This may seem to be an absurd thing to say of a Vanderbilt road, but this particular Vanderbilt road, apparently, is not to be permitted to destroy the business of the other Vanderbilt roads, or to hold any relations with the New York Central which will make doubtful its interest in common with other roads east of Buffalo that may establish lines over it. Some time ago we mentioned a report that this road was to be held a sort of "free for all" route, which would interchange with any other lines whatsoever, east or west, simply on condition of receiving its proportion of whatever the regular rate on the business may be. And this report is confirmed by what has happened since. The New York, Lackawanna & Western is welcomed as an eastern connection, and now it is said that the Erie is about to establish a freight line in connection with it. This latter is especially significant, as the Erie has had an unfavorable experience with the other Vanderbilt roads west of Buffalo, from which it was summarily cut off a little more than a year ago; and when as it was about closing a contract for a freight line over the New York, Chicago & St. Louis the announcement of the transfer of the control to the Vanderbilts was announced, it broke off its negotiations as if it were a matter of course that it could have no advantageous alliance there. Since that time the Erie's own line into Chicago has been completed, and it has agreed to lease the New York, Pennsylvania & Ohio on terms which will make it for its advantage to cultivate the traffic of that road; and yet it is announced that it will establish the "Traders' Dispatch" in connection with the New York, Chicago & St. Louis next month. The new freight line will run to Boston by the Hoosac Tunnel road and the New York & New England, to Philadelphia by the Lehigh Valley, and to Cincinnati by the Erie's Cincinnati, Hamilton & Dayton.

Before the road was completed it was proposed to run through trains between New York and Chicago by the Erie and the New York, Chicago & St. Louis, which is one of the shortest routes.

CHICAGO THROUGH SHIPMENTS EASTWARD for the week ending March 7 for four successive years have been:

Tons.....	1880.	1881.	1882.	1883.
.....	54,355	28,085	48,681	72,051

Thus the shipments this year were 48 per cent. more than last year, 157 per cent. more than in 1881 (when they were exceptionally small, however), and 33 per cent. more than in 1880. In fact, the shipments were extraordinarily large, equaled only in a very few weeks—twice in March, 1880, once in April and once in June, 1881, and since then only in the last week of last year.

Of the shipments this year 14 per cent. went by the Chicago & Grand Trunk, 26.5 by the Michigan Central, 16.1 by the Lake Shore, 21.6 by the Fort Wayne, 15.2 by the Par-handle, and 6.6 per cent. by the Baltimore & Ohio. Thus the two Vanderbilt roads, which are entitled to 44.5 per cent. of the whole, carried 42.6, and the two Pennsylvania roads, entitled to 35.5 per cent., carried 36.8.

For seven successive weeks the shipments have been, in tons:

Jan. 24.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.	March 7.
53,657	45,029	43,388	58,140	61,533	60,385	72,051

The increase over the last week of February is nearly 20 per cent. The earnings from the shipments of the week this year must have been about at the rate of \$253 this year to every \$100 in 1882, \$115 in 1881, and \$224 in 1880.

The movement continues exceptionally heavy, and promises to be large throughout the month, without change of rates. Though shipments in January of last year were the largest ever known, and 64,055 tons more than this year, it now seems probable that this will be more than balanced by gains in March this year, leaving the shipments for the first quarter of the year the largest on record.

The shipments of grain, flour and provisions reported at Chicago for the week ending March 10 were 69,510 tons this year against 80,565 last year and 59,937 tons in the previous week of this year. Last week 15,437 tons of the

shipments were flour, 43,998 grain, and 10,075 provisions. But of this total 3,853 tons went by the New York, Chicago & St. Louis road.

CHICAGO, BURLINGTON & QUINCY EARNINGS AND EXPENSES are now reported for the year 1882. In the first issue of this year we quoted an estimate coming from Boston which made the gross earnings \$124,000 and the net earnings \$200,000 less than in 1881. The complete returns, however, show an increase of \$374,000 in gross and \$280,000 in net earnings—not a very great difference on a road which earns more than \$20,000,000 gross, but a good deal for the six weeks or so for which it was necessary to estimate a small part of the earnings and a little more of the expenses. The expenses, however, were astonishingly small in December. The returns for 1882 are not satisfactory, however, because there was a considerable addition to the mileage then. The average length worked was 2,822 miles in 1881 and about 3,150 in 1882, so that there was a decrease in the net earnings per mile from \$3,757 to \$3,455, or 8 per cent.

There were better crops on this road in 1882 than in 1881, which will be felt chiefly in the traffic of the following year, but they were still not all good by any means. The corn crop in Iowa, which is of great importance to the road, was decidedly poor. Excellent crops in Kansas and Nebraska will greatly benefit through traffic of the road, but the opening of the Wabash and the Milwaukee & St. Paul lines to Council Bluffs reduces its proportion of the valuable Chicago-Council Bluffs traffic from one-third of the whole to one-fifth. There are no signs of any unusual immigration to the country on the Iowa and Nebraska lines and further west, but on the other hand generally on its lines there is at least the usual activity of business and marked prosperity.

NORTHERN PACIFIC LAND SALES are not likely to be large in the winter, but last February they amounted to 40,591 acres, against 11,412 last year, an increase of 257 per cent. More than three-fourths of the whole sales (31,177 acres) were this side of the Rocky Mountains, in Minnesota, Dakota and Montana, and here the sales were four times as great as last year. The total sales amounted to \$224,920, but no less than \$62,287 of this was for town lots.

Though, as we have said, sales of land in winter are not usually large, this year they were much larger than the average for the whole of previous years. For the year ending with June last the sales east of the Rocky Mountains averaged 23,975 per month, against 31,177 last February; but then west of the mountains the sales averaged 14,793 per month, against 9,419 last February. The sales for the year amounted to \$1,709,338, or \$142,445 per month; in February last, to \$229,920.

There is now considerable buying of these lands for speculation, which doubtless tends to increase the winter sales; but this speculation is itself evidence of a good market for the land. The sales to actual settlers are of very great importance as an indication of the course of business, not on this road only, but on others east of it.

THE GRAIN MOVEMENT has suddenly swelled to proportions never before known while navigation was closed. For the week ending March 3 the receipts at Northwestern markets were 52 per cent., the shipments of these markets 33 per cent., and the receipts of the Atlantic ports 55 per cent. more than the large receipts and shipments of the previous week. Even shipments down the Mississippi, which had been insignificant for months, took a new start and were about as large in this ninth week of the year as in the other eight together. There is a large gain in Northwestern receipts at Chicago, Toledo, Detroit and Peoria, very little at Milwaukee and St. Louis; New York, Boston, Baltimore and New Orleans are the great gainers among Atlantic ports, and Baltimore and New Orleans much the greatest. Baltimore has not had so large receipts before since August, and New Orleans not since September, and but once since May, 1881. The extraordinary movement was perhaps due partly to the carriage of grain which floods and snows had kept back before; but as the movement had been heavy for some time previous, this does not prevent its being extraordinary.

DOING SHOP WORK BY CONTRACT has been made prominent in the new car shops at Pullman. The shop foremen are paid salaries, and work is let to contractors, who hire their men and generally work with them; but as these laborers are paid (every two weeks) by the company, it reserves the right to reject any one. The work is inspected by the shop foreman, and not until it is completed and has passed inspection is anything due the contractor. The system of piece work at Altoona does not differ essentially from this. Mr. Pullman is anxious to have these works do something toward the solution of the labor problem, a part of which, certainly, is to secure the best efforts of the workman by giving him the fruits of his superior skill, industry or facility, and this is secured to those who take contracts; and the contractor, as the employer of a few men with whom he works, will probably secure better service of his few employees than a great works will of its many; while the inducement always exists to gain the qualifications which will enable the workman to become a contractor himself.

#### Foreign Railroad Notes.

A considerable extension of the railroad system of Algeria is contemplated, largely for military purposes. As there will be little traffic to support these railroads, it is desirable that they should be as cheap as is compatible with



effectiveness. It has been proposed to make them narrow-gauge roads, and one plan is to make most of them of 1.1 metres (43 in.) gauge, and the others of 0.75 metre (nearly 30 in.). This, however, would very greatly reduce their value for military purposes, as the exigencies of war might make it desirable to send half the rolling stock of the province upon one of the most remote and least used lines. On this account Mr. Ernest Pontzen (who with M. Lavoinne has made a very minute study of American railroads, and published the most complete work on them that exists in any language) has proposed in a paper read before the French Society of Civil Engineers to make the new roads cheap standard-gauge lines, with sharp curves when required, to avoid great expense and to equip them with American rolling stock, or rather with cars resting on two trucks, and engines with trucks. He cites the curves common on some of our roads with heavy traffic, and shows that they are of less radius than those proposed for the 1.1 metre gauge in Algeria, and he also cites the sharper curves of some of the lines of lighter traffic, but the shortest cited is 355 ft., which is very far from being the shortest we have. He also cites the cost of some of our railroads, to show that they are really cheap. The advocate of the 1.1 metre gauge estimates that the roads could be built of that gauge for \$40,594 per mile. Mr. Pontzen shows that the average cost in six whole states in this country (and none of these prairie states) has been only about \$38,000 per mile.

If it should be thought necessary to have narrow-gauge railroads in the mountainous districts of Algeria, Mr. Pontzen urges that they should all be of one gauge, and that the metre gauge, and that the cars of these as well as those of standard-gauge roads should be on trucks, with transfer apparatus at the junctions, as in this country, so that the car stock may be made available so far as possible for roads of both gauges.

This is, so far as we know, the first recognition in Europe of the peculiar fitness of the American railroad system of road and equipment for lines of light traffic and earnings—of the possibility of making such roads extremely cheap.

The average fare per passenger on the Metropolitan District Railway (the smaller of the two London underground roads) in the last half of 1882 was 9 cents for first-class, 6 for second-class and a trifle over 4 cents for third-class passengers. Of the whole number, 71½ per cent. were third-class, 19 per cent. second-class, and only 9½ per cent. first-class. The whole number of passengers over the road in 1882 was 31,585,497, an average of 86,400 per day, which is more than the average on any of the New York elevated lines. The traffic has not increased lately. It was largest in 1880 and 1881—32.9 millions in both years, and so was 4½ per cent. less last year.

Mr. Brossard, Inspector of the Paris, Lyons & Mediterranean Railroad, reports that on that road the wear of steel rails in main tracks was about ½ inch; but from the first year the average life is lower, and only about 0.06 in. per year for the next 10 years.

#### THE SCRAP HEAP.

##### Locomotive Building.

The Pennsylvania Railroad shops at Altoona, Pa., have begun to build 20 class A passenger engines and 10 passenger engines of the new class N.

The New York, Lake Erie & Western shops at Susquehanna, Pa., have just completed a new mogul passenger engine, to burn anthracite coal.

##### Car Notes.

The Barney & Smith Manufacturing Co. in Dayton, O., have just delivered 100 box and 50 coal cars to the Wisconsin Central road.

The Philadelphia & Reading shops in Reading, Pa., have just completed a very handsome parlor car for the Bound Brook line between Philadelphia and New York, and are building nine more of the same pattern.

The Missouri Car & Foundry Co. has nearly completed its new shops in St. Louis, and some of them are already at work.

The Eureka Car Coupler Co. has been organized at Grand Rapids, Mich., with \$180,000 capital stock.

The Suspension Car Truck Co. at Pullman, Ill., is making trucks for 200 freight cars and also some heavy passenger car trucks for the New York, West Shore & Buffalo road.

The Pullman shops at Pullman, Ill., have completed a private car for the President of the Union Pacific. It is 62 ft. long, and has two sleeping rooms, a saloon, a kitchen and an open observation room.

A. R. Gregory, Assignee, will sell the Jacksonville Car Works at public sale on the premises in Jacksonville, Ill., March 21. The real estate includes seven acres of land with large shops; the personal property includes lumber, iron, etc. The sale will be for cash.

##### Bridge Notes.

Alden & Lassig, of the Rochester Bridge & Iron Works, have just completed a large iron bridge at Carrollton, N. Y., on the Rochester & Pittsburgh road.

##### Iron Notes.

A delegate meeting of the Amalgamated Association of Iron & Steel Workers will be held in Pittsburgh, April 7, to consider the scale of wages to go into effect June 1. It is thought that the action of the meeting will be conservative, and that there will be little difficulty in coming to an agreement with the manufacturers.

The Liberty & Columbia Manufacturing Co. is the name of the new organization that has become the purchaser of the Liberty and Columbia furnaces and estates in Shenandoah County, Va., for the sum of \$250,000. One of the principal parties in this purchase is Mr. Samuel G. Merrick, of Philadelphia. It is understood that Mr. Jacob Wisner goes into the new concern as Superintendent. About 3,000 tons of charcoal pig, the product of these furnaces, is now piled up at Edinburg and Woodstock stations of the Valley Branch of the Baltimore & Ohio. This company, as a matter of necessity, must at once connect its ore beds and furnaces by a branch railway to a junction with either the

Baltimore & Ohio or with the Virginia Midland.—*The Virginian*.

Sinking Creek Furnace in Giles County, Va., recently went out of blast, having made 1,500 tons of charcoal iron last year.

Thomas Furnace in Niles, O., has been rebuilt and the stack raised 15 ft., making it 70 ft. high and 16 ft. bosh. The furnace went into blast Feb. 22 last.

Victoria Furnace, of the Iron & Steel Works Association of Virginia (limited), located at Victoria, near Goschen station of the Chesapeake & Ohio, in the valley of Big Calpasture River, Rockbridge County, Va., has had drying out fires in the one of its great furnaces that has been completed for some time; it will blow in some time in March. It is expected to make from 330 to 360 tons of pig iron a day.

##### Manufacturing Notes.

The business of Thorne, DeHaven & Co., engineers and machinists, Twenty-first above Market street, in Philadelphia, has been disposed of to Mr. Thomas H. Dallett, who will continue it under his own name. All accounts to March 7 will be settled by the old firm.

Last summer, Jas. Rees & Son, of this city, built for M. Seveck, of Russia, a wooden steamboat for the Volga River trade. This boat gives so much satisfaction that M. Seveck has contracted with the Messrs. Rees to build him four more. The latter will be built in Russia, and on Monday last Mr. Geo. B. Wilson, a well-known mechanic of this city, departed for that country to superintend their construction. One of them will be 135 ft. long, and two 145 ft. in length, 28 ft. wide, and 4½ in. the hull. The fourth and largest one will be 235 ft. in length. The hulls of two of them, under the superintendence of Mr. Dunbar, another Pittsburgher, are complete, and the other two are in the frame. Wherever the American river boat is introduced it soon proves its superiority over all others. This has been the case in South America, and thus far in Russia.—*Pittsburgh American Manufacturer*.

The Weimer Machine Works in Lebanon, Pa., have recently shipped blowing engines to the Passaic Zinc Co., in Jersey City, N. J., the Crozier Iron and Steel Co., at Roanoke, Va., and the Eureka Coal and Iron Co., at Oxmoor, Ala. They are building two more for Citico Furnace at Chattanooga.

The American Tube Works, of Boston, have opened a branch house at 79 Lake street in Chicago, where a stock of their seamless brass and copper tubes will be kept of all sizes from ¼ in. up to 7½ in. diameter.

##### The Rail Market.

Steel Rails.—Quotations continue at \$39 to \$40 per ton at mill, with no large sales. It is probable that heavy orders could be placed for less.

Rail Fastenings.—Spikes are quoted at \$2.75 per 100 lbs.; track-bolts, \$3.50 for square heads and \$3.60 to \$3.70 for hexagon heads. Fish-plates or splice bars are quoted at 2½ cents per pound.

Old Rails.—The market is very quiet and prices nominal at \$25 per ton in Philadelphia for tees and \$26.50 to \$27 for double-heads. No quotations for old steel rails.

##### Old Railroad Relics.

There were returned recently to the General Passenger Agent of the New York Central road a bundle of tickets which were found in the overhauling of one of the stations on the line of the road. They were issued in 1852, and have the signature of C. H. Kendrick, Ticket Agent. They were for passage over the Hudson River Railroad from Albany to New York, and bore this remarkable indorsement: "If used on accommodation train leaving Albany at 8.45 p. m., one dollar on every whole ticket will be refunded by conductor." These were tickets that were used when night trains were first run over the road, 30 years ago, and the indorsement guaranteeing the return of one dollar was to induce passengers to travel by rail instead of by boat. With this package came another, of tickets good for passage between the same points, but having the word "Rochester" stamped on the back. This, used at about the same time, was of the same form, a single bit of red pasteboard about the size of an ordinary visiting card, and was of the style used before the coupon tickets now in vogue were thought of. When the late D. L. Freyre was the Ticket Agent of the New York Central road, he had issued a ticket from Albany to St. Louis. On the edge were printed the initials of the various roads over which the holder could pass. The conductor was obliged to punch from this ticket the name of his road as the holder passed over it. This style of ticket called into being for the first time the conductor's punch, now used by every conductor. It was also the first attempt at a combination ticket, from which has finally grown the present half-yard long coupon ticket. It was also the reason for the first gathering of General Passenger Agents to consult on methods for managing their business more methodically, which meetings finally grew into the National Association of General Passenger Agents.—*New York Times*.

##### Fidelity and Casualty Co.

This company, which is engaged in the business of giving bonds for the fidelity of employes, states that the recent appointment of a referee by Judge Davis, of the New York Supreme Court, to examine into its condition and affairs, was made at the instance of competitors and others hostile to the Fidelity and Casualty Co., and without the knowledge of the officers of that company. Before the official notice of the appointment of the referee was received, Mr. Wm. M. Richards, President of the Fidelity and Casualty Co., requested him to make his examination at the earliest possible moment, and he replied that he would begin Monday, March 12. The company reports that it is sure the referee's report will show the charges against it to be groundless, and tells its clients, among whom are many railroad employes, that they may feel assured that the fullest satisfaction may be given them.

##### To Prevent Accident.

A story is circulating, Dean Alford says, that the following "notice to engine-drivers" was posted at an English railroad station: "Hereafter, when trains running in opposite directions are approaching each other on separate lines, conductors and engineers will be required to bring their respective trains to a dead halt before the point of meeting, and be very careful not to proceed until each train has passed the other." As neither of the words "conductor" and "engineer" are used in the British railroad language (in these senses), it may be permitted to doubt whether this notice was ever posted at an English station. The language is American, but the rule is distinctly Hibernian.

##### Appearances are Often Deceitful.

The American Institute of Mining Engineers was recently entertained at Lowell by Mr. J. B. Francis, whose residence is in close proximity to that of General Butler. As the carriages containing his seventy guests moved from the station toward the house of Mr. Francis, the people naturally wondered what imposing demonstration was in progress. Then some one suggested that the visitors were the convicts from Concord prison come to pay their respects to the Chief Mag-

istrate, with whom they lately signified their intention to co-operate. This explanation was so natural that everybody accepted it, and a throng of citizens hastened toward the Governor's mansion to witness the reception. Great was their disappointment at seeing a respectable company of engineers alight at Mr. Francis' door.

##### A Railway Eating House in Sweden.

The station at Katrineholm, I shall never forget; nor the dinner that I had there. I was exceedingly hungry, having started very early in the morning, and when the guard cried *Tjugo for Middag* (twenty minutes for dinner), I lost no time in making preparations. On entering the *matsal* (dining-room), I for a moment forgot my hunger, everything was so different from what I had before seen. In the centre of the room was a long table with a snow-white table-cloth, upon which was seen the most tempting food imaginable, all smoking hot, having just been taken from the oven. At one end of the table were two tureens, one of soup and the other of buttermilk, the latter a favorite dish in Sweden, and of which many partake before their soup. Beside these tureens were piles of wara plates, knives, forks, spoons and napkins. Each traveler who was desirous of dining helped himself or herself to a plate, etc., walked around the table, selected what best pleased the appetite, then seated himself at one of the small tables around the room. After the soup came fish, then roast beef, lamb, chicken, vegetables, jellies, puddings, bread, cream and coffee. One could eat all he wished, help himself a second time if he desired to, and the price of a dinner, five or six courses, was only one krona and 50 ore—about 40 cents. Those who did not wish a full dinner helped themselves from the *smorgasbord* or to a cup of coffee from a coffee urn. There were no waiters running to and fro, no crashing of dishes, no noise or confusion in any way. Each person went to the desk and paid for what he had eaten, either the dinner from the *smorgasbord*, from which a good meal could be made of cold meats, bread and butter for 50 ore (13 cents), or for a lunch of coffee and cakes. The word of each person was taken, and there were no waiters watching to see what each had eaten. I never enjoyed a dinner more, and I thought how pleasant it would be to have similar restaurants in America.—*Foreign Letter*.

##### Continuous Brakes on the Continent of Europe.

The following is from the *London Engineering*:

"Progress continues to be made in the adoption of continuous brakes upon the Continent. In Germany the government have definitely settled upon the principle of compressed air and automatic action, while in Holland all the railway companies are busily engaged in fitting up their stock with the Westinghouse automatic brake. There is every prospect that by May next, the date fixed by the royal decree, the Dutch companies will have complied with the demand that all express trains, as well as others for which it might be thought necessary, must be fitted with automatic continuous brakes. Recent reports by the Board of Trade inspectors upon railway collisions in this country continue to indicate the necessity for similar appliances, and if the railway companies will persist in ignoring the recommendations of the Board of Trade there would appear to be no other course open to the government but to follow the example of France, Belgium and Holland and insist upon them. The scheme which was last year brought out in Belgium to form an Eames vacuum brake company, with a capital of 9,285,000 francs, has collapsed. We learn from the *Moniteur Belge* of the 6th inst. that at a meeting convened for the purpose at Brussels on the 24th ult. it was unanimously resolved to go into liquidation."

## General Railroad News.

### MEETINGS AND ANNOUNCEMENTS.

#### Meetings.

Meetings will be held as follows:  
Denver & Rio Grande, annual meeting, at the company's office in Colorado Springs, Col., April 13, at noon.  
Pittsburgh, Cincinnati & St. Louis, annual meeting, at the office in Columbus, O., March 20.  
Toledo, Cincinnati & St. Louis, special meeting, in Toledo, O., May 5, to vote on an agreement of consolidation with the Cincinnati Northern.

#### Railroad Conventions.

The General Time Convention will hold its spring meeting at the Lindell House in St. Louis, April 11.  
The Southern Time Convention will meet at the National Railway Club Rooms, No. 46 Bond street, New York, April 18.  
The Car Accountants' Association will hold its annual convention in Philadelphia, May 22.  
The General Baggage Agents' Association will hold its next semi-annual meeting at the Tremont House, Chicago, Aug. 8.

#### Technical Meetings and Conventions.

The Master Car-Builders' Association will hold its annual convention in Chicago, beginning June 12 next. The meeting will be held in the Grand Pacific Hotel. The charge at that hotel to members will be \$3 per day for ordinary rooms.  
The Master Mechanics' Association will hold its annual convention in Chicago, June 19 next.

#### Dividends.

Dividends have been declared as follows:  
Chicago, Milwaukee & St. Paul, 3½ per cent., semi-annual, on both preferred and common stock, payable April 16. Transfer books close March 26.  
Lehigh Valley, 2 per cent., quarterly, payable April 16, to stockholders of record March 17.  
Western Union Telegraph, 1½ per cent., quarterly, payable April 16. Transfer books close March 20.

#### Foreclosure Sales.

The New York & Sea Beach road will be sold at public sale in New York, March 20, by George S. Bowdoin and J. W. Smith, trustees. The road extends from Bay Ridge, N. Y., to Coney Island, 6 miles, and the property includes the dock and 4½ acres of land at Bay Ridge, and the Palace Hotel at the Coney Island terminus. The funded debt consists of \$200,000 first-mortgage bonds, \$200,000 second mortgage bonds and about \$30,000 real estate mortgages.  
The Washington, Cincinnati & St. Louis road will be sold at public sale in Harrisonburg, Va., April 7. The property consists of some right of way, a little grading and the franchises, etc., the company having no completed road.

#### National Association of General Passenger & Ticket Agents.

The Association met at the National Railway Club Rooms in New York, March 13. President E. P. Wilson occupied the chair with Mr. A. J. Smith as Secretary. There was a very full attendance of members.  
The first day was devoted chiefly to the discussion of theatrical rates, and the report of the committee on that



subject. It was decided that theatrical troupes traveling in their own cars should not be carried for less than 18 unlimited fares, extra fares to be collected if the party number more than 18.

On the second day the baggage question was discussed and it was decided to recommend the general adoption of the rule now in force on the Chicago lines limiting the weight of any single piece of baggage to 250 lbs. It was decided to carry corpses hereafter on local tickets only, no coupon tickets to be sold for their transportation.

After electing officers and transacting the usual routine business, the Association adjourned to meet in Chicago, Sept. 18 next.

#### ELECTIONS AND APPOINTMENTS.

**American Society of Civil Engineers.**—At the last regular meeting H. D. Gates, of San Francisco, and Gustav Lehlbach, of Newark, N. J., were elected members; Wm. J. Haskins, of New York, a junior member.

**Atlanta & Charlotte Air Line.**—At the annual meeting in New York, March 14, the old board was re-elected, and afterwards chose Hiram Sibley President. The road is leased to the Richmond & Danville.

**Augusta, Elberton & Chicago.**—The Board has elected John L. Anderson, of Wilkes County, Ga., and Walker Hawes, of Lincoln County, Ga., directors to fill vacancies.

**Broadway Underground.**—At the annual meeting in New York, March 13, the following directors were chosen: Edward M. Clymer, Henry C. Gardiner, Melville D. Smith, New York; Jerome Fassler, Springfield, Mass.; Wm. Windom, St. Paul, Minn. The board elected Melville D. Smith President; John Cummins, Secretary; Edward M. Clymer, Treasurer.

**Camden & Atlantic.**—The new board has elected Wm. J. Sewell Vice-President; Wm. Taylor, Treasurer. Mr. D. M. Zimmerman continues Secretary. Messrs. Sewell and Taylor hold the same positions with the West Jersey Co.

**Charleston & Savannah.**—At the annual meeting in Charleston, S. C., March 5, the following were chosen: President, H. B. Plant; Directors, Wm. H. Brawley, Wm. Cutting, C. G. Memminger, B. F. Newcomer, A. F. Ravenel, W. T. Walters.

**Chesapeake, Ohio & Southwestern.**—The following appointments are announced: Mr. J. F. Klepper, Train Dispatcher and Chief Operator. His orders pertaining to the movement of trains, distribution of cars, and to telegraph operators will be respected and obeyed. Orders for cars should be addressed to him. Mr. J. A. Dew, Train-Master, will have authority over all train and yard men and station agents. Mr. J. Ross, Assistant Train-Master.

Office of Train Dispatcher and Train-Master at Paducah, Ky.; Assistant Train-Master at Kentucky street yard, Louisville, Ky.

**Chicago & Grand Trunk.**—At the annual meeting in Chicago, March 14, the retiring directors were re-elected as follows: Joseph Hickson, L. J. Seargeant, J. McMillan, E. W. Meddaugh, F. A. How, W. Munro, A. Doiton, W. T. Mitchell, J. McCaffrey, D. T. Skinner, T. S. Stanford, W. C. Beardsley, W. S. Shepard, J. J. Herrick, J. H. Whitman. Subsequently the directors met and elected the following officers: President, Joseph Hickson; Vice-President, L. J. Seargeant; Secretary and Treasurer, Charles Percy.

**Cleveland, Lorain & Wheeling.**—This company, successor to the Cleveland, Tuscarawas Valley & Wheeling, has elected Selah Chamberlain President; W. S. Streater, Vice-President; Oscar Townsend, General Manager; C. D. Cutter, Secretary and Treasurer; W. H. Park, Auditor; Wm. Thornby, Superintendent.

**East & West, of Alabama.**—Capt John Postell, of Cedar-town, Ga., is General Manager of this road.

**Lackawanna Line.**—Mr. W. H. Smith has been appointed General Manager of this first freight line. He was recently on the Canada Southern line.

**Lamoille Valley Extension.**—At the annual meeting in St. Johnsbury, Vt., March 13, Walter L. Frost, Horace Fairbanks, James H. Rutter, Bradley Barlow, Franklin Fairbanks, William P. Fairbanks and A. B. Jewett were elected directors. At a meeting of the directors Walter L. Frost was elected President; Horace Fairbanks, Vice-President; William P. Fairbanks, Treasurer; A. B. Jewett, Clerk; Walter L. Frost, Horace Fairbanks, A. B. Jewett, Executive Committee.

**Lehigh Valley.**—Mr. Frederick Mercur has been chosen a director in place of R. Asa Packer, deceased.

**Louisville & Nashville.**—Mr. L. Hege is appointed Superintendent of the Henderson Division, with headquarters at Henderson, Ky. Appointment took effect March 8.

**Michigan Central.**—Mr. Arthur W. Street, Assistant General Freight Agent, has been transferred to Chicago to take the place of Mr. Alexander Mackey, who has gone to the Chicago & Atlantic road. Mr. C. J. Hupp succeeds Mr. Street as Assistant General Freight Agent at Detroit. Mr. J. F. Schantz is appointed General Agent at Grand Haven, to succeed Mr. Hupp.

**Missouri Pacific.**—At the annual meeting in St. Louis, March 13, the following directors were chosen: R. J. Lackland, R. S. Hayes, R. C. Kerens, St. Louis; Henry Whelen, Philadelphia; F. L. Ames, Boston; Jay Gould, T. T. Eckert, Sidney Dillon, H. G. Marquand, J. S. Lowry, J. T. Terry, Samuel Shethar, Russell Sage, New York.

At a meeting held the same day the controlled St. Louis, Iron Mountain & Southern elected the same directors. Mr. J. W. Van Valkenburg has been appointed Car Recorder for this company and all its leased and controlled lines, with office at Texarkana.

**National Association of General Passenger & Ticket Agents.**—At the meeting in New York, March 14, the Association elected officers as follows: President, Lucius Tuttle, Eastern Railroad; Vice-President, C. A. Taylor, Richmond, Fredericksburg & Potomac; Secretary, A. J. Smith, Cleveland, Columbus, Cincinnati & Indianapolis.

**New York Railroad Commission.**—The New York Railroad Commissioners have elected Mr. W. H. Thompson Secretary of the Commission. He has been for several years in the office of the Auditor of the New York, Pennsylvania & Ohio at Cleveland.

**New York, West Shore & Buffalo.**—Mr. Henry Monett is appointed General Passenger Agent of this company, taking effect March 1. Correspondence in relation to passenger, ticket and baggage business will be conducted by Mr. Monett, whose office, until further notice, will be in the Mills Building, 15 Broad street, New York city.

Mr. William P. Robinson has been appointed Traffic Manager of this company, taking effect March 1.

Mr. Robinson was formerly General Freight Agent of the Missouri, Kansas & Texas road.

**Northern Pacific.**—Mr. John T. Odell has been appointed Superintendent of Transportation of the Eastern divisions, with office in St. Paul, Minn., in place of G. W. Cross, resigned. Mr. Odell has been for some time Superintendent of the Dakota Division, and has served on the Erie, the Atlantic & Great Western and the Kansas Pacific.

Mr. E. J. Westlake has been appointed Superintendent of Dining Cars, to date from April 1 next.

**Northwestern Ohio.**—At the annual meeting in Toledo, O., March 9, the following directors were chosen: John E. Davidson, Frank Jones, G. W. Layng, Thomas D. Messler, J. N. McCullough, R. F. Smith, Wm. Thaw. The road is owned by the Pennsylvania Company.

**St. Louis Bridge Co.**—At the annual meeting in St. Louis last week the following directors were chosen: Gerard B. Allen, J. Pierpont Morgan, Wm. Taussig, Edward Walsh, Jr., Julius S. Walsh.

**St. Louis & San Francisco.**—At the annual meeting in New York, March 13, the following directors were chosen: Wm. F. Buckley, Walter L. Frost, James D. Fish, Jay Gould, A. S. Hatch, C. P. Huntington, Horace Porter, Russell Sage, Jesse Seligman, E. F. Winslow, New York; R. S. Hayes, Charles W. Rogers, St. Louis; Leard Stanford, San Francisco. The only new director is Mr. Hatch, who succeeds A. W. Nickerson.

**Union Railway, of Indianapolis.**—The directors have chosen James McCrea, President; W. N. Jackson, Secretary and Treasurer; D. F. Whitcomb, Superintendent; W. P. Ijams, Auditor.

**Wabash, St. Louis & Pacific.**—At the annual meeting in St. Louis, March 13, the following directors (one-third of the board) were chosen for three years: R. S. Hayes, St. Louis; F. L. Ames, Boston; Jay Gould, A. L. Hopkins, Russell Sage, New York.

**Western Union Telegraph.**—The board has elected John T. Terry a director in place of Hon. Edwin D. Morgan, deceased.

#### PERSONAL.

—Mr. George W. Cross, Superintendent of Transportation of the Northern Pacific road, has resigned his position to engage in other business.

—Mr. W. J. Maurac, Assistant Secretary of the Illinois Central Co., has, it is said, declined the position of Secretary of the New York Railroad Commission.

—Mr. W. O. Davis has resigned his position as Traveling Auditor of the St. Paul & Duluth road, and has accepted a position with a coal company at Pocahontas, W. Va.

—It is announced that Mr. T. A. Phillips, General Manager, H. Z. Eaton, Assistant Treasurer and Paymaster, and J. H. Weir, Purchasing Agent, of the Toledo, Cincinnati & St. Louis road, have tendered their resignations.

—Mr. Robert B. Cable, Superintendent of the Susquehanna Division of the New York, Lake Erie & Western road, has resigned in order to accept a position on the Denver & Rio Grande. Mr. Cable has been on the Erie road about 25 years, and has served five years as division superintendent.

—Major Edward D. Muhlenberg, a civil engineer of long experience, died in Lancaster, Pa., March 9, aged 51 years. He entered his profession about 30 years ago, and was employed on the Philadelphia & Reading and other roads, and also had charge of the location of a railroad in Brazil. He served with credit during the war, attaining the rank of major in the Fourth United States artillery. Since the war he has been employed in the surveys of the Union Pacific, the Northern Pacific and the Southern Pacific, but was compelled to give up active work several years ago on account of failing health.

#### TRAFFIC AND EARNINGS.

**Coal.**  
Anthracite coal tonnages for the two months ending March 3 are reported as follows, the tonnage in each case being only that originating on the line to which it is credited:

	1883.	1882.	Inc. or Dec.	P. c.
Phil. & Reading .....	935,415	854,894	I.	80.521
Northern Cent. Shamokin Div. ....	194,001	183,246	I.	10.755
Summit Branch .....				
Sunbury, Hazleton & Wilkes-Barre .....	2,393	2,223	I.	139
North & West Branch .....	83,074	83,074	I.	83,074
Central of N. J., Lehigh Div. ....	630,992	595,694	I.	35,298
Lehigh Valley .....	817,818	804,750	I.	13,068
Pennsylvania & N. Y. ....	28,624	24,120	I.	4,504
Del., Lacka. & Western .....	658,964	619,599	I.	39,365
Del. & Hudson Canal Co. ....	519,523	502,297	I.	17,226
Pennsylvania Coal Co. ....	174,076	145,563	I.	28,513
State Line & Sullivan .....	9,714	7,449	I.	2,265

Total anthracite .. 4,054,563 3,739,835 I. 314,728 8.4

The North & West Branch road was not opened last year. All the companies show small gains in tonnage. The trade is improving and stocks have been slightly diminished. The companies have decided to continue working half time every other week through the present month.

The total tonnages reported for the corresponding time for eight years have been as follows:

	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.
Anthracite .....	4,054,563	3,739,835	3,395,082	3,308,960	3,279,210	3,279,210	3,279,210	3,279,210
Bituminous .....	3,273,493	3,273,493	3,273,493	3,273,493	3,273,493	3,273,493	3,273,493	3,273,493

The anthracite coal tonnage of the Belvidere Division, Pennsylvania Railroad, for the two months was as follows:

	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.
S. Amboy for shipment .....	124,470	116,278	8,194	7.1				
Local points on N. J. lines .....	132,068	112,245	19,843	17.7				
Co.'s use .....	25,364	24,355	1,009	4.2				

Total .....

Of the total this year 217,647 tons were from the Lehigh Region and 64,275 tons from the Wyoming Region.

Actual tonnage passing over the Pennsylvania & New York road for the three months of its fiscal year, from Dec. 1 to March 3, was as follows:

	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.
Anthracite .....	231,204	203,091	D.	33,887	13.8			
Bituminous .....	63,884	107,370	D.	13,596	13.5			

Total .....

The larger part of the anthracite is received from the Lehigh Valley road.

Semi-bituminous tonnages are reported for the two months as follows:

	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.
Cumberland, all lines .....	294,401	362,257	D.	67,856	18.7			
East Broad Top .....	9,757	19,548	D.	9,791	50.2			
Huntingdon & Broad Top .....	30,016	42,168	D.	12,152	7.5			
Tyone & Clearfield .....	400,640	421,089	I.	20,449	5.1			
Bellefonte & Snow Shoe .....	49,025	30,425	I.	18,600	61.2			

Total semi-bituminous .. 852,839 876,087 D. 23,248 2.7

Cumberland shows a considerable decrease and Clearfield a fair increase. The Clearfield Region now leads the Cumberland by a large tonnage, but the Cumberland shipments will probably improve when the Chesapeake & Ohio Canal opens and freights settle down to the summer schedule after that opening.

The water is now being let into the upper levels of the Chesapeake & Ohio Canal. This will take some time, and there are some repairs to be made, so that it is hardly probable that coal will be delivered at Georgetown before April 1.

Actual tonnage passing over the Huntingdon & Broad Top road for the two months was:

	1883.	1882.	Inc. or Dec.	P. c.
Broad top coal .....	39,016	42,168	D.	3,152
Cumberland coal .....	76,420	69,831	I.	6,589
Total .....	115,445	111,999	I.	3,446

The Broad Top coal is mined on the line; the Cumberland carried through to the Pennsylvania Railroad.

Bituminous tonnages reported for the two months are as follows:

	1883.	1882.	Inc. or Dec.	P. c.
Barclay R. R. & Coal Co. ....	61,626	72,330	D.	11,304
Allegheny Region, Pa. R. R. ....	109,393	85,264	I.	24,069
Penn. and Westmoreland .....	241,850	232,961	I.	8,889
West Penna. R. R. ....	88,273	60,408	I.	27,865
Southwest Penna. R. R. ....	24,066	5,487	I.	18,519
Pittsburgh Region, Pa. R. R. ....	90,120	116,407	D.	26,287
Total bituminous .....	614,638	572,857	I.	41,781

Bituminous trade shows many changes. The trade is Western Pennsylvania is considerably affected by dullness in the iron trade and the stopping of mills and furnaces, although the results are not as quickly and sharply apparent as in the coke trade. The Pittsburgh river trade has been very good.

Coke tonnages reported for the two months are as follows:

	1883.	1882.	Inc. or Dec.	P. c.
Bellefonte and Snow Shoe .....	2,384	5,275	D.	2,891
Allegheny Region .....	20,090	19,175	I.	915
Westmoreland Region .....	43,342	52,500	D.	9,158
West Penna. R. R. ....	18,545	27,651	D.	9,106
Southwest Penna. R. R. ....	328,157	326,161	I.	1,996
Pittsburgh .....	124,434	123,337	I.	1,093
Total coke .....	536,952	554,099	D.	17,147

These tonnages are all over the Pennsylvania Railroad and branches, no other company reporting coke shipments. The statement being made by weeks, the figures for 1882 represent one day's tonnage more than that for the current year.

The coal tonnage of the Pennsylvania Railroad for the two months was as follows:

	Originating on the road.	Received from other roads.	Total.
Anthracite .....	108,640	261,383	370,023
Semi-bituminous .....	509,703	107,299	617,004
Bituminous .....	553,612	1,046	554,658
Coke .....	412,730	124,222	536,952
Total .....	1,584,687	315,750	2,078,637
Total, 1882 .....			1,867,682

Increase (11.3 per cent.) .. 210,955

A change in the form of the reports prevents a more detailed comparison. The total tonnage for February (four weeks) was 731,993 tons of coal and 193,104 tons of coke, 925,097 tons in all.

The Grand Trunk Railway Co. has let its coal contracts for 1883. Bell, Lewis & Yates, of Du Bois, Pa., were awarded 100,000 tons; Northwestern Mining & Exchange Co., of Daguerstown, Pa., 100,000 tons; Brady's Bend Mining Co., of East Brady, Pa., 65,000 tons; Long Run Coal & Iron Co., of New Beth'chem, Pa., 10,000 tons. The prices agreed upon range from \$2.59 to \$2.73 per ton of 2,000 lbs., delivered at the International Bridge, Buffalo, or at Suspension Bridge. Contracts were also let for 51,000 tons of Tuscarawas Valley (Ohio) coal, most of it to be delivered at Detroit. The Montreal deliveries will be 96,000 tons from Nova Scotia, at \$4.40 per ton for Pictou, and \$4.25 for Cape Breton.

The following are the shipments for the year of some of the bituminous districts of Northern Pennsylvania which do not generally report:

	1882.	1881.	Decrease.	P. c.
Blossburg mines, Tioga & Elmira State Line R. R. ....	1,165,604	1,178,581	12,977	1.1
McIntyre mines, Northern Central R. R. ....	200,858	236,922	36,064	11.4
McKean Co., Buffalo, N. Y. & Phila. R. R. ....	73,834	110,099	36,265	32.9

It will be noticed that all these districts show decreases for the year.

#### Mississippi River Barge Business.

The St. Louis Republican gives the shipments from that city down the Mississippi by barges from Feb. 20, when navigation opened, to March 6 at 46,025 tons. Of this freight the chief items were 30,822 tons corn, 10,387 tons wheat, 1,767 tons flour, and 333 tons pork and lard. All the corn and wheat were for export.

#### Virginia Mineral Traffic.

The mineral traffic of the Chesapeake & Ohio road originating on the line was as follows in 1882:

	Tons.
Iron ore .....	46,370
Pig iron .....	65,500
Limestone .....	19,480
Manganese .....	807
Slate and marble .....	1,410
Total .....	133,637

There was also carried 2,458 tons of lime, and 4,176 tons of salt.

#### Green Line.

A Green Line meeting is to be held at Atlanta, Ga., March 21, when it is expected that arrangements will be made for the settlement of existing differences with the Western roads.

The headquarters of the Green Line will be moved from Macon, Ga., to Atlanta about the end of the present month.

#### Revision of Bases of Rates Between Lake Erie Points and the Seaboard.

A meeting of the general freight agents of the Western connections of the trunk lines was held in Chicago, on Thursday of last week, to consider such changes in the rates from Lake Erie and adjacent points to the seaboard as will make impracticable the "short billing" of freight, so as to make the sum of the cut local rates from the West to the Lake Erie points and the regular through rate from the Lake Erie point to the seaboard less than the through rate from the West to the seaboard. A proposition was made to make the rate from Detroit and Toledo to New York 80 per cent.



of the Chicago rate, instead of 75% per cent., as it has been. This was strongly opposed by the Michigan Central and the Grand Trunk. The matter was then left to a committee.

### Railroad Earnings.

Earnings for various periods are reported as follows:

Two months ending Feb. 28:

	1887.	1888.	Inc. or Dec.	P. c.
Bur. Cedar Rapids & No. ....	\$54,463	\$478,454	D.	\$423,991
Chicago & Alton Lines:				
Chl. & Grand Trunk .....	429,370	1,108,727	I.	679,357
Chl. Ind. St. L. & Chi. ....	353,204	406,611	D.	53,407
Cleve. Akron & Col. ....	71,465	65,021	I.	6,444
Evansville & Terre Haute ..	101,408	113,533	D.	12,125
Flint & Pere Marquette .....	252,704	331,431	I.	78,727
Georgia .....	277,897	231,808	I.	46,089
Green Bay, Win. & St. P. ....	46,023	42,833	D.	3,190
Ill. Cen. Ill. Lines .....	976,882	1,178,929	D.	202,047
Iowa Lines .....	211,813	315,069	D.	103,256
Southern Div. ....	770,060	663,433	I.	106,627
Lake Erie & Western .....	239,763	226,713	I.	13,050
Little Rock & Ft. Smith .....	91,793	71,786	I.	19,997
Little R. Miss. R. & Tex. ....	67,407	41,575	I.	25,832
Memphis & Charleston .....	215,936	185,731	I.	30,205
Mill. Lake Erie & West. ....	729,974	131,246	D.	598,728
Missouri Pacific Lines:				
Central Branch .....	218,509	129,507	I.	88,702
Int. & Great No. ....	635,094	440,007	I.	195,087
Mo. Kan. & Tex. ....	1,08,473	704,338	I.	595,865
Mo. Pacific .....	13,359	131,319	I.	117,960
St. L. Iron Mt. & So. ....	1,188,009	1,017,497	I.	170,512
Te. & Pac. ....	900,009	602,522	I.	297,487
O. & N. Central .....	151,738	144,390	I.	7,348
O. & Southern .....	70,906	70,906	I.	0
Richmond & Danville .....	188,157	175,037	I.	13,120
St. L. Alton & Terre Haute:				
Main Line .....	338,025	279,341	I.	58,684
Belleville Line .....	132,442	132,442	I.	0
St. P. & Duluth .....	184,970	119,794	I.	65,176
Scioto Valley .....	60,717	71,961	D.	11,244
Wabash, St. L. & P. ....	3,378,541	2,364,333	I.	1,014,208

Month of January:

Bur. Cedar Rapids & No. ....	\$74,581	\$92,150	I.	\$17,569
Chl. & Grand Trunk .....	39,272	90,635	I.	51,363
Chl. Ind. St. L. & Chi. ....	107,402	252,823	D.	145,421
Chl. & Grand Trunk .....	17,737	99,115	D.	81,378
Chl. Ind. St. L. & Chi. ....	141,704	232,706	D.	91,002
Chl. Ind. St. L. & Chi. ....	20,018	32,252	D.	12,234
Chl. Ind. St. L. & Chi. ....	1,293	13,199	D.	11,906
Chl. Ind. St. L. & Chi. ....	1,115,567	1,115,567	I.	0
Chl. Ind. St. L. & Chi. ....	403,425	343,166	I.	60,259
Chl. Ind. St. L. & Chi. ....	19,203	34,141	D.	14,938
Chl. Ind. St. L. & Chi. ....	17,521	10	I.	17,511
Chl. Ind. St. L. & Chi. ....	83,400	83,400	I.	0
Chl. Ind. St. L. & Chi. ....	21,100	21,100	I.	0
Chl. Ind. St. L. & Chi. ....	129,432	129,432	I.	0

Month of February:

Bur. Cedar Rapids & No. ....	\$187,001	\$225,631	D.	\$38,630
Chl. & Grand Trunk .....	79,954	90,635	I.	10,681
Chl. Ind. St. L. & Chi. ....	528,337	517,897	I.	10,440
Chl. Ind. St. L. & Chi. ....	98,478	113,875	D.	15,397
Chl. Ind. St. L. & Chi. ....	143,464	188,072	D.	44,608
Chl. Ind. St. L. & Chi. ....	34,462	188,072	D.	153,610
Chl. Ind. St. L. & Chi. ....	104,516	116,811	D.	12,295
Chl. Ind. St. L. & Chi. ....	50,427	57,337	D.	6,910
Chl. Ind. St. L. & Chi. ....	105,159	163,888	I.	58,729
Chl. Ind. St. L. & Chi. ....	143,291	113,777	I.	29,514
Chl. Ind. St. L. & Chi. ....	32,198	100,070	I.	67,872
Chl. Ind. St. L. & Chi. ....	447,429	504,608	D.	57,179
Chl. Ind. St. L. & Chi. ....	121,945	104,000	D.	17,945
Chl. Ind. St. L. & Chi. ....	362,618	296,724	I.	65,894
Chl. Ind. St. L. & Chi. ....	104,067	100,070	I.	4,000
Chl. Ind. St. L. & Chi. ....	32,000	18,975	I.	13,025
Chl. Ind. St. L. & Chi. ....	1,012,740	960,315	I.	52,425
Chl. Ind. St. L. & Chi. ....	103,040	97,010	I.	6,030
Chl. Ind. St. L. & Chi. ....	64,563	65,653	D.	1,090

First week in March:

Chl. & Eastern Illinois .....	\$37,399	\$34,532	I.	\$2,867
Chl. & Northwestern .....	418,700	418,700	I.	0
Chl. Ind. St. L. & Chi. ....	402,000	335,727	I.	66,273
Chl. Ind. St. L. & Chi. ....	115,700	102,700	I.	13,000
Chl. Ind. St. L. & Chi. ....	114,500	87,500	I.	27,000
Chl. Ind. St. L. & Chi. ....	317,735	291,365	I.	26,370

Year ending Dec. 31:

Chl. Burlington & Quincy .....	\$21,550,805	\$21,176,456	I.	\$374,349
Chl. Burlington & Quincy .....	10,882,464	10,802,095	I.	80,369
Chl. Burlington & Quincy .....	\$2,027,060	\$1,905,490	I.	\$121,570
Chl. Burlington & Quincy .....	1,260,418	1,034,361	I.	226,057

### Grain Movement.

For the week ending March 3 receipts and shipments of grain of all kinds at the eight reporting Northwestern markets and receipts at the seven Atlantic ports have been, in bushels, for the past seven years:

Year.	Northwestern receipts.	Northwestern shipments.	Atlantic receipts.
1877 .....	1,500,568	1,041,102	2,719,769
1878 .....	2,883,118	1,341,877	3,253,417
1879 .....	2,945,234	1,743,635	4,307,569
1880 .....	3,893,233	2,285,216	3,791,998
1881 .....	2,757,801	1,564,359	3,456,407
1882 .....	1,715,293	1,561,648	1,775,843
1883 .....	6,531,960	4,101,322	4,865,927

Thus the receipts of the Northwestern markets for the week were much greater than in the corresponding week of any previous year, and nearly four times as great as last year. They were also 2,243,000 bushels (52 per cent.) more than in the previous week of this year and were the largest since August. These receipts were never approached in any winter week before, except in the last week of last December, when they were but 100,000 bushels less. The shipments of these markets also were much larger than in the corresponding week of any previous year, and 160 per cent. more than last year. They were the largest since October. Of the total 808,752 bushels, or 19.7 per cent., went down the Mississippi, which is very nearly as much as during the previous eight weeks of the year, and is among the largest river shipments ever made in a single week. The Atlantic receipts were also larger than in the corresponding week of any previous year and 3,090,000 bushels (172 per cent.) more than last year. These receipts were also 1,726,000 bushels (55 per cent.) more than in the previous week of this year, and the largest since the middle of September.

The whole movement is extraordinary, and never equaled when navigation was closed before, not even when rates to the seaboard were less than half as high as now. It may have been to some extent due to the forwarding of grain which would have gone before if not hindered, but evidently the natural movement at this time is heavy.

Exports from Atlantic ports for the week ending March 7 for three successive years have been:

	1881.	1882.	1883.
Flour, bbls .....	113,111	56,211	113,973
Grain, bu. ....	3,467,058	1,501,024	2,718,743

For the week ending March 10 receipts and shipments at Chicago and Milwaukee were:

	1883.	1882.	1881.
Flour, bbls .....	187,168	122,575	185,613
Grain, bu. ....	3,469,550	1,031,143	2,622,470

The increase in receipts was 163 per cent. and in shipments 119 per cent.

Receipts at four eastern ports in this week ending March 10 were:

	New York.	Boston.	Phila.	Balt.	Total.
1883 .....	1,722,305	540,600	418,350	940,147	3,621,402
1882 .....	619,470	189,945	48,430	86,152	944,006
1881 .....	1,224,835	437,200	458,350	919,734	3,040,119

P. c. of total:

1883 .....	47.6	14.9	11.5	26.0	100.0
1882 .....	65.6	20.1	5.2	9.1	100.0
1881 .....	40.3	14.4	15.1	30.2	100.0

Philadelphia and Baltimore together had 37.5 per cent. of the whole this year, against 14.3 last year, and 45.3 in 1881.

Receipts and exports of grain and flour (reduced to grain) at four Eastern ports during the month of February have been, in bushels:

	New York.	Boston.	Phila.	Balt.	Total.
Receipts .....	6,984,025	2,435,508	2,095,341	3,737,308	15,252,182
P. c. of tot. ....	45.8	16.0	13.7	24.5	100.0

Exports: Bushels .. 8,008,853 980,358 1,083,276 3,087,171 13,249,658 P. c. of tot. 61.1 7.4 8.2 23.3 100.0

The exports from New York were much larger than its receipts in February, and the total exports were nearly 87 per cent. of the receipts—an unusually large proportion. Philadelphia and Baltimore together receipts 38.2 and exported 31.5 per cent. of the whole. More than one-third of the receipts at New York and more than two-thirds of its exports were flour; more than half the Boston exports were flour; but less than 7 per cent. of the Philadelphia and 10 per cent. of the Baltimore exports. But of grain exclusive of flour, Baltimore exported a little more than New York. The flour exports were 4½ times the wheat exports.

Receipts and exports from these ports in January were:

	New York.	Boston.	Phila.	Baltimore.	Total.
Receipts .....	9,321,708	3,521,123	2,139,508	3,663,090	18,645,429
Exports .....	7,889,931	1,562,356	1,270,226	3,886,296	14,608,809

At New York receipts were 33½ per cent. less, but the exports 2½ per cent. more in February than in January. At Boston receipts were 31 per cent. and exports 37 per cent. less; at Philadelphia receipts were 2 per cent. more and exports 15 per cent. less; at Baltimore receipts were 2 per cent. more and exports 20 per cent. less. In the aggregate there was a decrease of 3,394,166 bushels (18.2 per cent.) in receipts, and an increase of 10½ per cent. in exports, from January to February, but the averages per day were:

	February.	January.	Inc. or Dec.	P. c.
Receipts .....	544,724	601,498	Dec. 56,772	9.4
Exports .....	473,202	471,252	I. c. 1,950	0.4

The export movement is heavy and equaled in no previous year except, possibly, 1879.

### RAILROAD LAW.

#### Attempts at Railroad Legislation in Nebraska.

A telegram to the Chicago Tribune says: "There are several reasons why the Legislature of Nebraska, at its last session, failed to pass a railroad law or enact railroad legislation of any kind. There were three political parties in the two houses, each tenacious of its own general principles and each determined to rule or ruin. The House had a small working majority of Republican members; the Senate was in the hands of the Anti-Monopolists and Democrats, and the two houses did not in any way pull together. One considerable party, quite strong in the House, preferred the general features of the Iowa railroad law, and a bill of this kind, which followed the general features of the Iowa commission system, passed the House by a small majority. Another considerable number of the members of both houses, though not a majority of either, favored railroad legislation after the Illinois pattern.

"The principal objection against the Illinois law, and one that caused its defeat, was that it was a dangerous concentration of power in the hands of two men who might make a majority of a board of commissioners. The House would have accepted either of these laws, but the Senate wanted something stronger and hotter. A majority of the members of that body were in favor of a commission law 'with teeth in it,' to use the expressive language of one of the Anti-Monopoly leaders; and this bill they succeeded in passing. It was on the principle of the Illinois law, only it went further; it struck out that clause in the Illinois statute that made the rates fixed by the commissioners *prima facie* evidence of what was a just rate in case an appeal was made to the courts, and put the decision of the commission beyond the reach of appeal. Next it made a sweeping reduction of all rates within the power of the Legislature, to the amount of 20 per cent. on all classifications, without deigning to inquire into the equities or expediency of the reduction. And finally it compelled the railroad companies having running arrangements with other roads for their business to disclose such arrangements, or, in other words, to make public their private business.

"The Anti-Monopolists of the extreme stripe in the Senate worked this bill through, but the House, not quite so bloodthirsty, promptly sat down on it. The next move was in the way of a joint committee of conference, consisting of members of both houses, the result of which was a bill corresponding almost exactly in all essentials with the Illinois law. This bill was supported by most of the Republican Senators, but was bitterly fought by all the Anti-Monopolists and nearly all the Democrats, and with its defeat as an amendment of the House bill ended the contest."

### OLD AND NEW ROADS.

**Bedford, Springfield, Owensboro & Bloomfield.**—A formal deed for this road will be given in a few days to the Indianapolis Rolling Mill Co., which now owns the line by purchase at judicial sale. A new company will be organized, and an attempt will be made to secure better connections for the road than it has heretofore had.

**Bell's Gap.**—The stockholders of this company have voted to increase the capital stock from \$350,000 to \$500,000, the new stock to be used for the extension of the road to some new coal mines, 4 miles beyond the present terminus at Coalport, Pa., and for the purpose of changing the road from 3 ft. to standard gauge.

**Boston & Albany.**—During the month of February this company received 10,830 freight cars from the New York Central at Albany, and delivered 11,004 cars to that road. The number of cars sent westward from Boston and Cottage Farm during the month was 8,103; the number eastward from Worcester was 7,363, and from Springfield 8,493; showing at least 2,337 through cars dropped at points west of Springfield, and 130 between Springfield and Worcester.

**Boston & Maine and the Eastern.**—At a meeting of the directors of the Eastern Co., held in Boston, March 13, a lease of that railroad to the Boston & Maine Co. was ratified, the same to be submitted to the stockholders at a meeting to be held March 23 next. This lease had already been accepted by the board of directors of the Boston & Maine.

The lease provides for the application of the net earnings of the combined roads in the following manner:

1. To the payment of the fixed charges of both corporations for interest and rentals.
2. To the payment of \$630,000 into the treasury of the Boston & Maine; this is equivalent to 9 per cent. dividends.
3. To the division of any excess not exceeding \$140,000 equally between the two corporations.
4. To the payment of the entire surplus above the amounts already appropriated to an amount not exceeding \$368,000 to the Eastern Co. This with the \$70,000 already divided will pay \$100,000 annually into the sinking fund and 6 per cent. dividends on the stock.

By this lease the Eastern Co. has its large fixed charges practically guaranteed by the Boston & Maine, they being placed before the dividends on the lessee's stock; the Boston & Maine stock is made a 10 per cent. stock, the earnings of the two roads being already adequate for this; and the surplus which will be derived from the increased efficiency and economies of operation is made a dividend fund for the Eastern Railroad, which has paid no dividend since 1871.

The lease contains clauses defining net earnings and providing for the issue of improvement bonds to pay for betterments made in the joint property.

The vote of the directors of the two roads looking toward consolidation and accepting this proposed lease is, of course, only preliminary. The stockholders of both roads must ratify this action, and the Legislature of New Hampshire, in which portions of the roads lie, must pass an enabling act before the lease can go into effect or the consolidation become an accomplished fact. That the majority of the stockholders are likely to approve the action of the directors seems to be pretty generally expected, but how difficult the task to secure favorable legislation from the New Hampshire legislators is an open question. As regards legislation in Maine, none is needed in that state. A bill proposing to prohibit the consolidation of these roads was introduced into the Maine Legislature a few days ago and defeated by the report "inexpedient to legislate" of the railroad committees being accepted. In Massachusetts the necessary legislation was secured two years ago. The leading men in both directories express their confidence in the ultimate success of the movement.

**Boston, Revere Beach & Lynn.**—Several hearings have been had on the bill now pending in the Massachusetts Legislature to permit this company to consolidate with the Eastern Railroad Co. Another bill is also pending, to permit the company to lease its road to the Eastern.

**Calumet.**—This company has been organized in Illinois to build a spur or short cut from the Columbus, Chicago & Indiana Central road at Globe Station, Ill., across the Calumet River to Hyde Park.

**Canadian Pacific.**—The contract for the section of about 600 miles from Calgary to Kamloops has been let to Langdon, Shepherd & Co., who have built a large part of the road. The new contract includes the line through the Rocky Mountain passes, and is to be finished in two years. The company has already closed contracts in England for most of the steel rails needed.

**Charleston & Savannah.**—At the annual meeting last week the resolution authorizing the issue of the \$150,000 of first-mortgage bonds to take up the pressing judgments, as was recommended by the board of directors on Jan. 19 last and communicated to the bondholders by the President in a circular letter, was unanimously adopted.

It was also resolved to increase the authorized amount of bonds to \$1,000,000 for the purpose of buying new equipment and improving the road. The President reported that last year's earnings were about \$50,000 more than those of the previous year. The present company has already laid about 65 miles of track in steel rails, and there remains about 35 miles of iron to be relaid. It was also thought necessary to make some changes in the drawbridges over the Ashley and Edisto rivers, on account of complaints that the present structures obstruct navigation, the company having been already indicted for obstructing the avigation of the Ashley River. All this work will require that the company should raise considerable money.

**Chicago & Eastern Illinois.**—A dispatch from Chicago, March 14, says: "In the case of Fosdick and Fish, trustees, against the Chicago, Danville & Vincennes Railroad Co., Judge Blodgett, of the Federal Court, to-day made a number of rulings. The road in question was brought under a foreclosure, and is being operated by the Chicago & Eastern Illinois Railroad. The Court denied the motion of the stockholders of the old Danville & Vincennes Railroad that the property be ordered back into the hands of a receiver, on the ground that the Chicago & Eastern Illinois Railroad Co. is a responsible corporation. The Court also denied the motion for reference to a Master in Chancery pending the hearing of a case in which the Chicago & Eastern Illinois Railroad Co. is defendant; also the motion to strike the bill from the files, on the ground that the Chicago & Eastern Illinois Railroad Co. claimed to be bona fide purchasers and might have a right to a decree."

**Chicago & West Michigan.**—This company is having surveys made for an extension of its road from White Cloud, Mich., northward through Lake, Wexford and Traverse counties to Traverse City. Work will probably be begun this spring.

**Connotton Valley.**—The new subscription for \$760,000 having failed to realize quite \$300,000, the directors have come to the conclusion contained in this circular letter to subscribers:

"The subscription to the securities offered under the circular of this company dated Feb. 15, 1883, being insufficient to carry out the entire plan, the organization of the company to build the railroad to Zanesville will be for the present postponed. Your subscription will, as contemplated by the circular, with your consent be applied to the completion of the subscriptions to the Boston Car Trust Association and the Cleveland Terminal Trust Association, and be ratably divided between them."

The money actually subscribed will be sufficient to provide the equipment needed at present, and to complete the terminal facilities in Cleveland.

**Corpus Christi & Pacific.**—This company has been organized to build a railroad from Corpus Christi, Tex., west by north through the Nueces Valley to Uvalde on the Galveston, Harrisburg & San Antonio road. A branch to San Antonio is also proposed.



**Des Moines, Osceola & Southern.**—This road is now completed to Decatur, Ia., 25 miles southwest of the late terminus at Davis City, and 95 miles from Des Moines. Trains will run through to the new terminus in a few days.

**East & West, of Alabama.**—This road is now under contract from the junction with the Selma Division of the East Tennessee, Virginia & Georgia at Germania, Ala., west to Broken Arrow, a distance of 40 miles. About 12 miles are graded and some of the bridge-work done, and the contracts call for the completion of the work by September. As soon as this section is finished work will be begun on the line from Cedartown, Ga., to Germania, about 30 miles. The company does not expect to let any contracts between Broken Arrow and Birmingham until these two sections are finished. Work has already been begun on the opening of several coal mines on the line.

**Fairplay, Mt. Sheridan & Leadville.**—Mr. J. A. Evans, Chief Engineer of the Denver & South Park Division of the Union Pacific, takes exception to the statement that this road will shorten the distance between Denver and Leadville by 75 miles (which statement was sent us by an officer of the company). Mr. Evans says: "There is no shorter line possible from Denver to Garo than that of our road (the Denver & South Park). From Garo to Leadville by our line is 68.7 miles; how then can 75 miles be saved?" Evidently it would be difficult.

**Fraser River.**—This company is organized to build a railroad from New Westminster in British Columbia to a connection with the Canadian Pacific, with a branch or extension to Semiahmoo Bay.

**Goldsborough Creek.**—This company has been organized to build a railroad from a point on Puget Sound, in Mason County, Wash. Ter., into a rich timber district.

**Hartford & Harlem.**—A dispatch from Hartford, Conn., March 13, says: "The railroad situation at the capitol has materially and very suddenly changed to-day. The Hartford & Harlem road long ago filed a petition, after legal notice, for a special charter, but also moved under the general railroad law; and, so far the petition has not been pushed. The company's managers have been working under the general law only and merely asked the Legislature for permission to fuse with a New York terminal line. But the lay-out did not go within two miles of New Britain and the people of that place want a through line to New York. So to-day, at the request of a large number of New Britain people, a petition was presented to the Railroad Committee for a bill allowing the Hartford & Harlem to change its line so as to run directly into New Britain, and incidentally the bill also grants a charter to the Hartford & Harlem road. The company could not change its present lay-out and run to New Britain without forfeiting all the rights it has acquired under the general law so far. Hence the present movement. New Britain is a driving and energetic place. Its people have taken hold of this move in earnest, and it looks as if something might come of it. It is, of course, nothing more or less than an outright attempt to secure a special charter but without special privileges. It is one more effort to escape from the delays that are met now at every turn. The bill is to be heard to-morrow afternoon by the committee. Its presentation was a complete surprise to the representatives of the old road, but they are not likely to sit still even if they are surprised."

**Illinois Central.**—This company's statement for February shows earnings as follows:

	1883.	1882.	Inc. or Dec.	P. c.
In Illinois.....	\$447,420	\$340,688	D. \$93,248	17.2
In Iowa.....	121,895	156,608	D. 34,711	22.1
Southern Division.....	362,656	290,724	I. 71,932	24.7
Total.....	\$931,971	\$987,998	D. \$56,027	5.6

In February, 1883, the Land Department reports sales of 4,929.75 acres for \$19,734.26. Cash collections on land contracts were \$15,601.41 for the month.

**Kansas City, Fort Scott & Gulf.**—On the Memphis Extension of this road track is now laid to Koshkoning, Mo., 11 miles southeast from the late terminus at West Plains, 124 miles from Springfield, Mo., and 325 miles from Kansas City. From the new terminus to Memphis the distance is 152 miles, and some 40 miles of track have been laid from the crossing of the Iron Mountain road in Arkansas.

Trains on this road are now run so as to make close connection with those of the St. Louis & San Francisco at Springfield.

**Lackawanna & Pittsburgh.**—A contract has been let to D. D. Warren, of Springfield, Mass., to build this road from Perkinsville, N. Y., on the Delaware, Lackawanna & Western's Buffalo Division, to Belfast, 22 miles.

**Lamotte Valley Extension.**—At a meeting held March 13 the contract to lease the road when completed to the Ogdensburg & Lake Champlain Co. was accepted. The road, on which work has been begun, will be the connecting link between the Ogdensburg & Lake Champlain and the St. Johnsburg & Lake Champlain roads, and will extend from Rouse's Point, N. Y., to Swanton, Vt., crossing Lake Champlain near its northern end. An issue of \$350,000 bonds was authorized, to be secured by a first mortgage on the road.

**Manitoba Southwestern.**—The St. Paul Pioneer Press of March 11 says: "W. A. Kennedy and William McGregor, accompanied by J. B. McArthur, of counsel, all of Winnipeg, and representatives of the interests of Dr. Schultz of the Manitoba Southwestern road, arrived in the city on yesterday morning. The object of their visit is to complete arrangements preliminary to the transfer of the road to the St. Paul & Manitoba authorities. The whole of yesterday afternoon was appropriated by these gentlemen to a conference with Manager Marvel regarding the transfer, which had not been concluded last evening. The arrangements will be perfected, however, to-day, when the ownership of the former franchise will become vested in the St. Paul & Manitoba Co., and particulars more in detail will be accessible."

**Massachusetts Central.**—The company has secured nearly the two-thirds of the bonds required to insure the success of the reorganization scheme. It is probable that the time for depositing the bonds will be further extended to April 1. It is nearly certain that a foreclosure will be necessary as, unless all the bonds come into the arrangement, the plan cannot otherwise be carried out, and, as has been stated, this foreclosure involves no hardship or injustice to the stockholders, whose rights are provided for in the reorganization.

**Mexican Central.**—The Boston Herald says: "The earnings from the Mexican Central main line, 306 miles, from the city of Mexico to Lagos and Matl were for the first two weeks of February \$67,027.29. The Chihuahua division of 235 miles, from El Paso to Chihuahua, earned in

the same period \$7,864.03, making the total earnings for the first half of February \$74,891.32. The Chihuahua Division earned for the third week of February \$9,834.40. The directors of the company at a special meeting voted to increase the stock of the corporation from \$6,500,000 to \$18,000,000 in accordance with the law of the state, so as to provide for the issue of the securities belonging to the No. 2 blocks. The surplus of over \$1,000,000 received in response to the call for the No. 4 blocks will be applied to the construction of the cross lines, as the \$6,032,500 called for is ample to complete the main line. It is believed by President Nickerson that the completion of the main line will put the earning capacity of the road on so good a footing that it will be possible to dispose of any blocks necessary to provide for the completion of the cross lines at better prices than have been secured for former subscriptions. The surplus million will thus prove doubly useful, in hastening the building of the cross lines and in putting off the day when more money will be needed."

**New York Railroad Report.**—An Albany telegram says that the New York Railroad Commission has adopted a regulation that every railroad corporation in the state, in addition to its annual report to the Board of Railroad Commissioners, be required to make quarterly reports, beginning with the first day of July, showing their financial condition, and that such report be published at least once in a daily newspaper published at the place where the principal office of such railroad company shall be located, and such report shall be made by all railroads and corporations, receivers, trustees, directors or others owning or operating the same, and also by all sleeping and drawing-room car companies or corporations.

**Norfolk & Western.**—The New River Division is now completed to its terminus at Pocahontas, Va., and was formally opened for traffic March 13. The new branch leaves the main line at New River station, 302 miles from Norfolk, and runs northward and westward to Pocahontas, which is in Tazewell County, Va., close to the West Virginia line. The branch is 75 miles long and about one-third of it is in West Virginia. Shipments of coal to Norfolk and other points on the line are already being made.

**Ohio & Mississippi.**—Receiver Douglas' statement to the Court for February is as follows:

Cash, Feb. 1.....	\$119,426
Receipts from all sources.....	334,719
Total.....	\$454,145
Disbursements.....	406,740

Cash, March 1.....\$47,405

The receipts were \$72,021 less than the disbursements, which included \$100,000 for coupons.

**Ohio River.**—Mr. Wallace McGrath, Chief Engineer of the Ohio Valley Construction Co., which is building this road, sends the following statement:

"The bids for the construction of the Ohio River Railroad from Benwood to Parkersburg, W. Va., about 90 miles in the valley of the Ohio River, were opened in Cincinnati on Friday, March 9, and awarded as follows: The grading, masonry and timber work for the First Division next to Benwood to Geo. P. Mills & Co., of Holmesburg, Pa. The length of the division is 29 miles. The second and third divisions, grading, masonry and timber work, also tracklaying and ballasting, to Coleman & Page, of Akron, O. Length of the two divisions, 60 miles. The contract for the cross-ties for the whole road was let to L. D. Cantrill & Co., of Springfield, Ill.

"There were 140 bids received, 45 of which were for the whole line."

**Oregon & California.**—This company's statement for January is as follows:

Earnings.....	\$82,400
Expenses.....	61,300

Net earnings.....\$21,100  
Expenses include about \$10,000 for new rails. The traffic during the month was much interrupted by storms.

**Pennsylvania.**—The route of this company's new Philadelphia, Germantown & Chestnut Hill Branch has been finally located, and is described by the Philadelphia Ledger as follows: "The new line, which will be a double-track road throughout, leaves the Connecting Railway about 300 ft. west of the Reading Railroad at Germantown Junction, crosses over Sixteenth street at Indiana avenue, thence west over Seventeenth street and across the Norristown Branch of the Philadelphia, Germantown & Norristown Railroad, then crossing over Allegheny avenue, runs north over Nicetown lane about one square west of Township line road, thence over the Richmond Branch of the Reading Railroad at Old Oaks, it crosses the Township line road at Queen street, thence goes to Chelton avenue at Pulaski street, where the main depot in Germantown will be. Thence it runs diagonally, crossing Wayne street at Washington avenue, then through the Carpenter and McClain properties, crossing Allen's lane at the junction of Cresheim road, thence crossing the Cresheim Creek at the old burnt mill, thence parallel with Thirtieth street to Highland avenue, then curving around parallel with Evergreen avenue it crosses to Germantown avenue at the forks of the Perkiomen and Spring House turnpike, where the main depot for Chestnut Hill is to be. This line runs through Germantown, Mount Airy and Chestnut Hill westward to Germantown avenue, while the present branch of the Reading Railroad runs to the eastward of that avenue."

Proposals for the grading and masonry of the line, about 7 miles in all, will be received until March 31 at the office of Wm. H. Brown, Chief Engineer, No. 233 South Fourth street, Philadelphia. Plans, profiles and specifications can be seen at the office.

The contract for the masonry of the bridge over the Schuylkill on this new Germantown line has been let to E. D. Smith. The bridge will be 1,600 ft. long and 80 ft. above the water.

At the annual meeting in Philadelphia, March 13, there was nothing done beyond the usual routine proceedings. The annual report, which has already been published, was adopted, and the thanks of the stockholders were tendered to the officers of the company. A resolution approving the policy of the company in using the profits for making betterments was adopted, a protest being made by two or three stockholders. The Chairman was instructed, as usual, to appoint a committee to select a ticket for a board of directors, and the meeting then adjourned.

**Philadelphia & Atlantic City.**—The New Jersey Central's Southern line has heretofore had a Philadelphia connection over the Camden & Atlantic road. When the control of that road was secured by the Pennsylvania Railroad Co., the Central began negotiations for the lease of the Philadelphia & Atlantic City road. It is understood that these negotiations are now completed. The road extends from Camden to Atlantic City, 54½ miles, and has never been financially successful; it has been for several

years managed by a receiver, and must be taken out of the receiver's hands before the lease can be completed. The terms agreed on have not been made public, but it is stated that the Philadelphia & Atlantic City Co. is to issue \$500,000 new 5 per cent. bonds, to be guaranteed by the lessee, and that the proceeds of these bonds will be used to pay off existing debt and to change the road from 3 ft. 6 in. to standard gauge.

The controlling interest in this road is owned by Mr. Wm. Massey, of Philadelphia. Some time ago he negotiated a sale of his stock and bonds to the Camden & Atlantic Co., but the transfer was enjoined by the Chancellor.

**Pittsburgh Junction.**—The Pittsburgh Telegraph of March 12 says: "The contract for the construction of the Junction Railroad was awarded Saturday to Stearns, Shaw & Norris, of Columbus, O. There were a number of bidders from all parts of the country. The contract price has been figured down to about \$800,000. There has been some delay in perfecting the contract on account of the traffic arrangements. The job embraces the gradation, tunneling and masonry of the entire line from Laughlins, on the Baltimore & Ohio Railroad, to where a bridge is to be built across the Allegheny River. The work will be commenced within a week's time. The bonds of the road are selling above par; the majority of stock is owned by Pittsburgh business men, the balance in other places. The firm awarded the contract has built the Columbus & Toledo, Ohio & West Virginia, and the Springfield & Southeastern railroads, and portions of the Lake Erie & Western and Cincinnati Southern railroads.

**Pittsburgh, McKeesport & Youghiogheny.**—Work on this road is now progressing very well, a large part of the grading being finished. Track has been laid on the west side of the Youghiogheny from West Newton, Pa., northwest to Boston, about 18 miles, and everything is ready for the rails to McKeesport, 7 miles further. In Pittsburgh the iron viaduct and a large part of the approach to the Monongahela bridge are completed.

**Poughkeepsie & Southwestern.**—This company has filed articles of incorporation in New York to build a railroad from a point on the Hudson River, opposite Poughkeepsie, west to the valley of the Wallkill, and thence southwest to the state line near Liberty Corner in Orange county. The distance is about 45 miles, and the capital stock is to be \$1,125,000.

**Ridgefield & New York.**—This old project for a railroad from Ridgefield, Conn., on the Danbury & Norfolk road, southwest to Portchester, N. Y., has been revived, and an effort is now being made to secure some capital to build the road.

**St. John & Loch Lomond.**—Arrangements have been made to begin work next month on the grading of this road from St. John, N. B., northward. At a recent meeting of the Board it was decided to ask the Dominion government for a grant of rails for the road, and also to ask permission to change the name of the company to the St. John & North-eastern.

**St. Louis & San Francisco.**—On the extension of this road from Pacific, Mo., to St. Louis, track has been laid from Pacific east to Eureka, 7 miles. The bridge over the Meramec River near Eureka is completed, and tracklaying is advancing steadily.

**Sharpsville.**—The Pittsburgh Railroad Reporter of March 10 says: "Once more the Scott party on the Sharpsville Railroad has been refused an injunction restraining the Pierce party from interfering with the affairs of the road. It will be remembered that at the annual election of officers held in Mercer, Jan. 8, the Pierce party cumulated their votes—under the 4th section of article 16 of the constitution of Pennsylvania and gained the majority; that the judges of the election, although receiving these votes, refused to count them as cast, and reported the Scott directors elected by a vote of 3,396 to 3,037, simply allowing the Pierce party their shares and not the cumulated vote. This resulted in the case being taken before Judge McDermott, of Mercer, and the Pierce party came out victorious. The result was several more legal tiffs and finally the Scott party made application to Judge Bredin, of the courts of the county, for a preliminary injunction against the Pierce party, a similar application having been made in Mercer County. The case was argued in New Castle on the 1st inst. J. Ross Thompson, of Erie, appeared for the plaintiffs and endeavored to show why said injunction should be granted, claiming that defendants were wrongfully in possession of the road and its franchises; that they should be restrained from controlling said road, etc. After considerable talk had been indulged in Judge Bredin refused to hear further argument, claiming that he had no jurisdiction in the case, as the chief place of business is in Mercer County. Thus the proceedings ended rather abruptly, and the Scott party were once more out in the cold. What the next move will be is not as yet announced."

**Texas Midland.**—This company has been organized to build a railroad from Waco, Tex., to Palestine, through the timber belt. The distance is about 95 miles.

**Troy & Greenfield.**—The Springfield Republican of March 14 says: "State Treasurer Gleason and the Hoosac Tunnel Committee are reported as entertaining favorably a proposition to let the Troy & Greenfield Railroad Co. redeem their property at \$6,000,000, letting the state out of the tunnel business. Another proposition is to consolidate the Fitchburg, Vermont & Massachusetts and Troy & Greenfield roads, the state going in as a party and shareholder upon a valuation of \$6,000,000. Thirdly, the state could probably sell out directly for \$6,000,000, \$1,500,000 in cash and \$4,500,000 in 30-years 4 per cent. bonds. Some satisfactory trade ought to be arrived at from these divers propositions."

The Republican has always favored the sale of the Hoosac Tunnel and the state road.

**Wabash, St. Louis & Pacific.**—It has been reported that this road was to be leased to the Missouri Pacific Co., and that the lease, for some legal reasons, was not to be made to that company directly, but through the St. Louis, Iron Mountain & Southern, which is controlled by the Missouri Pacific. At the annual meetings of the two companies in St. Louis this week it is said that the stockholders decided that such a lease would be desirable, but no terms have been agreed on or even proposed as yet.

**Western Union Telegraph.**—The statement for the quarter ending March 31, the earnings for March being estimated, is as follows:

Surplus, Jan. 1.....	\$3,393,885
Net earnings for the quarter.....	1,750,000
Total.....	\$5,143,885
Interest and sinking funds.....	120,500
Balance.....	\$5,017,385

It was decided to pay a dividend of 1½ per cent. for the quarter, which will take \$1,399,750, leaving a balance of \$3,617,635.